



Green Tax Incentive Compendium

Federal and State Tax Incentives for
Renewable Energy and Energy Efficiency

August 2023

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What a law firm
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About Polsinelli PC

Polsinelli is an Am Law 100 firm with more than 950 attorneys in 21 offices nationwide. Recognized by legal research firm BTI Consulting as one of the top firms for excellent client service and client relationships, the firm's attorneys provide value through practical legal counsel infused with business insight, and focus on health care, financial services, real estate, intellectual property, middle-market corporate, labor and employment and business litigation.

Recently ranked #30 for Client Service Excellence among 650 U.S. firms and #10 for strongest client relationships by BTI Consulting. Polsinelli is one of the largest law firms in the country with a broad geographic footprint and deep experience in a wide variety of practice areas.

Business-Minded Attorneys

Polsinelli attorneys align their thinking and their legal practices with the executive perspective and business management of the clients we serve. From how our attorneys approach their work to how we define the results we plan to deliver, we are a strategic partner every step of the way – providing straightforward business-oriented counsel, managing expectations, minimizing legal ambiguities and always keeping an eye out for what the future holds.

Committed to Understanding Your Business

Engaging as a partner with our clients is about collaborating for their success. By developing a strong level of trust and a transparent flow of communication, we become partners whom our clients grow to value today, tomorrow and in the years to come. The most successful and strategic partnerships are ones in which our clients involve us earlier rather than later in their business. By having an early seat at the table, we can ensure our legal advice has direct application within our clients' specific and unique contexts. It also allows us to provide services and guidance including legal intelligence, attendance at client strategy meetings, and integration of our non-legal professional team such as patent agents, policy advisors and legislative directors.

Respect for your Leadership Role

Our attorneys respect the complexity of your roles, the complexity of your business and the decision and challenges your legal team faces. We strive to be responsive to your needs and mindful of your business goals and budgetary priorities. As strategic partners and stewards of your resources, we know you would expect nothing less. We succeed when you succeed.

Integrative Client Platforms

Polsinelli deploys legal technology platforms to support an environment of transparent communication and partnership with our clients. Our clients' time is valuable, and these solutions promote efficiency and clarity. We regularly utilize electronic datarooms for extranet access that allows clients and Polsinelli attorneys to seamlessly manage matter or case-specific documents. For our larger client relationships, we can offer the collaborative and interactive Polsinelli Client Relationship Portal. Designed to provide full transparency, our Client Relationship Portal allows clients to connect virtually with their Polsinelli legal team and access reports and documents on demand.

Relevant Services

Tax Credit Finance:

Polsinelli's Tax Credit Finance practice has a comprehensive nationwide practice experienced in facilitating complex transactions utilizing these essential financing tools. Our attorneys' extensive experience is enhanced by our commitment to understanding our clients' business and providing high-quality legal services that are proactive - anticipating and addressing our clients' business goals. Our business-oriented legal approach guides investors, community development entities, syndicators, lenders, and for-profit and non-profit developers and businesses in effectively using tax credit incentives to achieve their business goals.

Energy:

Polsinelli's Energy law practice has achieved a national presence by representing energy companies, utilities, developers, lenders, and investors across the country in connection with the acquisition, development, finance, and operation of a variety of energy facilities – including oil, gas and electric generating facilities, wind, solar, geothermal, biomass and biofuel renewable energy projects.

Financial Services:

Partnering with financial institutions and businesses across the country, Polsinelli is recognized nationally for providing insightful and practical counsel to clients regarding all aspects of debt and equity financing. Our Finance practice teams represent lenders, borrowers, issuers, servicers, investors and related parties during all phases of the finance relationship, ranging from loan origination, servicing, sales and securitizations to financial restructuring, workouts, loan enforcement, and bankruptcy.

Tax:

All companies, organizations and individuals can expect to encounter tax issues. In order to provide our clients with the experience and services they need, Polsinelli Tax attorneys must have either a Master's in

Accounting, be a CPA or have a Master's in Tax Law. With those qualifications, Polsinelli Tax practice attorneys provide creative solutions and legal guidance on international, federal, state and local tax laws to entities in all major industries and tax status classifications.

Real Estate:

Polsinelli real estate attorneys handle all aspects of a real estate deal – from acquisition through development, debt and equity financing, leasing and disposition. Our experience cuts across all segments of the real estate industry and includes collaborating with clients throughout every step in a real estate transaction. We have been involved in office, industrial, student housing, retail, mixed-use, resort and hospitality, multifamily and single-family residential transactions in virtually every state in the country. We have teams focusing on sub-markets such as health care and renewable energy.

The Compendium

This volume presents certain federal and state tax incentives promoting the renewable energy and energy efficiency industries. Each section outlines the basic features and regulatory requirements for a tax program which provides financial incentives for clean technology development through renewable energy and energy efficiency projects. For additional assistance with these tax incentives please contact Jerome Garciano at 617.406.0335 or jgarciano@polsinelli.com.

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About the Authors



Jerome L. Garciano, Esq., CPA, LEED A.P.

Jerome Garciano is an attorney in the firm's Tax Credit Finance Practice Group in the Real Estate and Financial Services Department. Jerome's practice focuses on state and federal tax financing incentives affecting the built environment. Mr. Garciano provides tax and finance support for developers, lenders, syndicators, investors, nonprofit sponsors, and government agencies in renewable energy and real estate developments using the Historic, New Markets, Renewable Energy, and Low-Income Housing Tax Credits. He is a LEED accredited professional and has advised clients on utilizing energy efficiency and renewable energy tax incentives. He also works on tax policy initiatives promoting green energy and real estate development. He is also a certified public accountant and has worked as a finance associate at a national nonprofit organization and a financial services firm. Jerome sustainability practice focuses on building and development of sustainable projects, including energy efficiency, renewable and alternative energy, green building, smart growth, water resources and preservation of natural resources.



Alan Claus Anderson, Energy Attorney, Vice Chair

Alan Claus Anderson, Energy Attorney, Vice Chair
Alan Claus Anderson is a Shareholder and Vice Chair of Polsinelli's national Energy Practice Group. Mr. Anderson represents renewable energy developers in project development and permitting on projects throughout the country, representing clients in more than 5,000 MW in operating wind, solar and battery storage projects.

Mr. Anderson is an active speaker and teaches renewable energy law as an adjunct law school professor at the University of Kansas School of Law. Mr. Anderson is also actively involved in numerous committees, organizations and trade groups supporting the renewable energy industry. Mr. Anderson has served as a member of the American Clean Power's Siting and Social License to Operate Committee and Central States Committee, Chair of the Government Team for the United States Department of Energy Electrify the Heartland Project, Solar Finance Lead for the Department of Energy's Solar Ready KC SunShot initiative and Chair of the Kansas City Area Development Council's Advanced Energy and Manufacturing Advisory Council.



Virginia Y. Duong, Tax Attorney

Virginia Duong is committed to helping businesses and individuals identify practical solutions to resolve their tax matters while meeting their business objectives. Virginia advises clients on the tax consequences of various corporate and business transactions including corporate and partnership formations, mergers, acquisitions and dispositions.

Prior to joining the firm, Virginia worked in the tax department of a Fortune 100 energy company. In this role, she provided advice regarding all aspects of renewable-energy projects including tax equity structures, refinancings, acquisitions and dispositions. She also worked extensively with investment tax credits for various solar projects and other renewable energy projects.

Summary Chart of Federal/State Renewable Energy and Energy Efficiency Tax Incentives - August 2023



What a law firm should be.

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
00.00 Federal Tax Incentives for Renewable Energy and Energy Efficiency											
00.01	Federal	§45	Renewable Electricity Production	Biomass	Income	Credit	Producer	10	\$0.003 - 0.015/Kwh		2024
00.01	Federal	§45	Renewable Electricity Production	Wind	Income	Credit	Producer	10	\$0.003 - 0.015/Kwh		2024
00.01	Federal	§45	Renewable Electricity Production	Methane	Income	Credit	Producer	10	\$0.0015 - 0.0075/Kwh		2024
00.01	Federal	§45	Renewable Electricity Production	Geothermal	Income	Credit	Producer	10	\$0.003 - 0.015/Kwh		2024
00.01	Federal	§45	Renewable Electricity Production	Hydrogen	Income	Credit	Producer	10	\$0.003 - 0.015/Kwh		2024
00.01	Federal	§45	Renewable Electricity Production	Hydroelectric	Income	Credit	Producer	10	\$0.003 - 0.015/Kwh		2024
00.01	Federal	§45	Renewable Electricity Production	Marine	Income	Credit	Producer	10	\$0.003 - 0.015/Kwh		2024
00.02	Federal	§48	Investment In Energy Property	Fuel cell	Income	Credit	Owner	5	6-30%+	\$1,500/0.5 kw	2024
00.02	Federal	§48	Investment In Energy Property	Solar	Income	Credit	Owner	5	6-30%+	-	2024
00.02	Federal	§48	Investment In Energy Property	Geothermal	Income	Credit	Owner	5	6-30%+	-	2024
00.02	Federal	§48	Investment In Energy Property	Wind	Income	Credit	Owner	5	6-30%+	-	2024
00.02	Federal	§48	Investment In Energy Property	Biomass	Income	Credit	Owner	5	6-30%+	\$200/kw	2024
00.02	Federal	§48	Investment In Energy Property	Storage	Income	Credit	Owner	5	6-30%+	-	2024
00.02	Federal	§48	Investment In Energy Property	Microgrid	Income	Credit	Owner	5	6-30%+	-	2024
00.02	Federal	§48	Investment In Energy Property	Hydrogen	Income	Credit	Owner	5	1.2-30%+	-	2024
00.02	Federal	§48	Investment In Energy Property	Cogeneration	Income	Credit	Owner	5	6-30%+	-	2024
00.03	Federal	§30C	Qualifying Alternative Fuel Vehicle Refueling Property	Alternative Fuel	Income	Credit	Owner	-	6-30%	\$100,000	2032
00.03	Federal	§30C	Qualifying Alternative Fuel Vehicle Refueling Property	Electric Vehicle	Income	Credit	Owner	-	6-30%	\$100,000	2032
00.03	Federal	§30C	Qualifying Alternative Fuel Vehicle Refueling Property	Fuel cell	Income	Credit	Owner	-	6-30%	\$100,000	2032
00.04	Federal	§40	Second Generation Biofuel	Biofuel	Income	Credit	Producer	-	\$1.01/gal	\$1.5 million	2024
00.05	Federal	§40A	Biodiesel Fuels	Biodiesel	Income	Credit	Producer	-	\$1.00/gal	15 million gallons	2024
00.05	Federal	§40A	Biodiesel Fuels (Small Agri)	Biodiesel	Income	Credit	Producer	-	\$0.10/gal	15 million gallons	2024
00.06	Federal	§30D	New Clean Vehicles	Electric Vehicle	Income	Credit	Owner	-	\$3,750 or \$7,500	-	2032
00.06	Federal	§30D	New Clean Vehicles	Fuel cell	Income	Credit	Owner	-	\$3,750 or \$7,500	-	2032
00.06	Federal	§25E	Previously Owned Clean Vehicles	Electric Vehicle	Income	Credit	Owner	-	30% or \$4,000	-	2032
00.06	Federal	§25E	Previously Owned Clean Vehicles	Fuel cell	Income	Credit	Owner	-	30% or \$4,000	-	2032
00.07	Federal	§30B	Alternative Motor Vehicles	Fuel cell	Income	Credit	Purchaser	-	\$4,000-\$44,000	-	2021
00.08	Federal	§45L	New Energy Efficient Homes	Energy Efficiency	Income	Credit	Builder	-	\$500-\$5,000	-	2032
00.09	Federal	§179D	Energy Efficient Commercial Buildings	Energy Efficiency	Income	Deduction	Owner	-	100%	\$5.00/SF	-
00.10	Federal	§168(e)(3)	Certain Energy Property	Solar	Income	Deduction	Owner	5	200% DB	-	-
00.10	Federal	§168(e)(3)	Certain Energy Property	Geothermal	Income	Deduction	Owner	5	200% DB	-	-
00.10	Federal	§168(e)(3)	Certain Energy Property	Fuel cell	Income	Deduction	Owner	5	200% DB	-	-
00.10	Federal	§168(e)(3)	Certain Energy Property	Storage	Income	Deduction	Owner	5	200% DB	-	-
00.10	Federal	§168(e)(3)	Certain Energy Property	Biomass	Income	Deduction	Owner	5	200% DB	-	-
00.10	Federal	§168(e)(3)	Certain Energy Property	Various	Income	Deduction	Owner	5	200% DB	-	-
00.11	Federal	§48C	Advanced Energy Projects	Solar	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Hydroelectric	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Marine	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Wind	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Geothermal	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Fuel cell	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Storage	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Biofuel	Income	Credit	Owner	-	6-30%	-	Limit
00.11	Federal	§48C	Advanced Energy Projects	Various	Income	Credit	Owner	-	6-30%	-	Limit
00.12	Federal	§45Y	Clean Electricity Production	Various	Income	Credit	Producer	-	\$0.003 to \$0.015 per KWH		2034+
00.13	Federal	§48E	Clean Electricity Investment	Various	Income	Credit	Owner	-	6-30%	-	2034+
00.13	Federal	§48E	Clean Electricity Investment	Storage	Income	Credit	Owner	-	6-30%	-	2034+
00.14	Federal	§25C	Energy Efficiency Home Improvement	Energy Efficiency	Income	Credit	Owner	-	30%	Varies	2032
00.15	Federal	§25D	Residential Clean Energy	Solar Electric	Income	Credit	Owner	-	30%	-	2034
00.15	Federal	§25D	Residential Clean Energy	Solar Thermal	Income	Credit	Owner	-	30%	-	2034
00.15	Federal	§25D	Residential Clean Energy	Fuel cell	Income	Credit	Owner	-	30%	\$500/0.5kw	2034
00.15	Federal	§25D	Residential Clean Energy	Wind	Income	Credit	Owner	-	30%	-	2034
00.15	Federal	§25D	Residential Clean Energy	Geothermal	Income	Credit	Owner	-	30%	-	2034
00.15	Federal	§25D	Residential Clean Energy	Storage	Income	Credit	Owner	-	30%	-	2034
00.16	Federal	§40B	Sustainable Aviation Fuel	Biofuel	Income	Credit	Purchaser	-	\$1.25 per gal plus adder		2024
00.17	Federal	§45V	Production of Clean Hydrogen	Hydrogen	Income	Credit	Producer	10	\$0.12 - \$3.00 per kilogram		2032
00.18	Federal	§45W	Qualified Commercial Clean Vehicles	Electric Vehicle	Income	Credit	Owner	-	15-30%	\$7,500 - \$40,000	2032
00.18	Federal	§45W	Qualified Commercial Clean Vehicles	Fuel cell	Income	Credit	Owner	-	15-30%	\$7,500 - \$40,000	2032
00.19	Federal	§45X	Advanced Manufacturing Production	Solar	Income	Credit	Producer	-	Varies		2032
00.19	Federal	§45X	Advanced Manufacturing Production	Wind	Income	Credit	Producer	-	Varies		2032
00.19	Federal	§45X	Advanced Manufacturing Production	Battery	Income	Credit	Producer	-	Varies		2032
00.20	Federal	§45Z	Clean Fuel Production	Biomass	Income	Credit	Producer	-	\$0.20 - \$1.75 per gal x emissions factor		2027
01.00 Alabama State Tax Incentives for Renewable Energy and Energy Efficiency											
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Wind	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4		Alternative Fuel	Property	Abatement	Utility	-	100%	-	2018

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Biomass	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Marine	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Geothermal	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Solar	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Irrigation	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Methane	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Hydroelectric	Property	Abatement	Utility	-	100%	-	2018
01.01	Alabama	§40-9B-4	Alternative Energy Production Facilities	Fuel cell	Property	Abatement	Utility	-	100%	-	2018
01.02	Alabama	§40-18-15(a)(16)	Wood-Burning Heating Systems	Biomass	Income	Deduction	Owner	-	100%	-	-
03.00 Alaska State Tax Incentives for Renewable Energy and Energy Efficiency											
03.01	Alaska	§29.45.050(b)(E)	Residential Renewable Energy Systems	Solar Electric	Property	Exemption	Owner	-	Varies	-	-
03.01	Alaska	§29.45.050(b)(E)	Residential Renewable Energy Systems	Wind	Property	Exemption	Owner	-	Varies	-	-
03.01	Alaska	§29.45.050(b)(E)	Residential Renewable Energy Systems	Hydroelectric	Property	Exemption	Owner	-	Varies	-	-
03.01	Alaska	§29.45.050(b)(E)	Residential Renewable Energy Systems	Various	Property	Exemption	Owner	-	Varies	-	-
03.02	Alaska	§29.55.100	Energy and Resilience Improvement Assessment Program	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
03.02	Alaska	§29.55.100	Energy and Resilience Improvement Assessment Program	Various	Property	Financing	Owner	-	Varies	-	-
03.03	Alaska	§29.45.049	Energy Efficient Construction	Energy Efficiency	Property	Credit	Owner	-	Varies	-	-
04.00 Arizona State Tax Incentives for Renewable Energy and Energy Efficiency											
04.01	Arizona	§42-12006(8)	Renewable Energy Operations	Solar Electric	Property	Abatement	Manufacturer	10-15	75%	-	2014
04.01	Arizona	§42-12006(8)	Renewable Energy Operations	Wind	Property	Abatement	Manufacturer	10-15	75%	-	2014
04.01	Arizona	§42-12006(8)	Renewable Energy Operations	Hydroelectric	Property	Abatement	Manufacturer	10-15	75%	-	2014
04.01	Arizona	§42-12006(8)	Renewable Energy Operations	Geothermal	Property	Abatement	Manufacturer	10-15	75%	-	2014
04.01	Arizona	§42-12006(8)	Renewable Energy Operations	Biofuel	Property	Abatement	Manufacturer	10-15	75%	-	2023
04.01	Arizona	§42-12006(8)	Renewable Energy Operations	Various	Property	Abatement	Manufacturer	10-15	75%	-	2014
04.02	Arizona	§42-14154	Renewable Energy Property	Solar	Property	Assessment	Utility	-	20%	-	2040
04.02	Arizona	§42-14154	Renewable Energy Property	Wind	Property	Assessment	Utility	-	20%	-	2040
04.02	Arizona	§42-14154	Renewable Energy Property	Storage	Property	Assessment	Utility	-	20%	-	2040
04.02	Arizona	§42-14154	Renewable Energy Property	Various	Property	Assessment	Utility	-	20%	-	2040
04.03	Arizona	§42-1105	Environmental Technology Facilities	Various	Income	Credit	Builder	-	10%	-	-
04.04	Arizona	§43-1085	Non-Residential Solar And Wind Energy Devices	Solar	Income	Credit	Owner	-	10%	\$25,000/building	2018
04.04	Arizona	§43-1085	Non-Residential Solar And Wind Energy Devices	Wind	Income	Credit	Owner	-	10%	\$25,000/building	2018
04.05	Arizona	§42-11054	Energy Efficiency and Renewable Energy Equipment	Solar	Property	Exemption	Owner	-	Varies	-	-
04.05	Arizona	§42-11054	Energy Efficiency and Renewable Energy Equipment	Energy Efficiency	Property	Exemption	Owner	-	100%	-	-
04.06	Arizona	§42-5061 (N)	Solar And Wind Energy Devices	Solar	Sales	Exemption	Purchaser	-	100%	-	2016
04.06	Arizona	§42-5061 (N)	Solar And Wind Energy Devices	Solar	Sales	Exemption	Purchaser	-	100%	-	2016
04.07	Arizona	§43-1176	Electric Vehicle Recharge Outlets	Electric Vehicle	Income	Credit	Builder	-	100%	\$75	-
04.08	Arizona	§43-1176	Solar Hot Water Heating	Solar Thermal	Income	Credit	Builder	-	100%	\$75	-
04.09	Arizona	§43-1083	Residential Solar And Wind Energy Devices	Solar	Income	Credit	Owner	-	25%	\$1,000	-
04.09	Arizona	§43-1083	Residential Solar And Wind Energy Devices	Wind	Income	Credit	Owner	-	25%	\$1,000	-
04.10	Arizona	§43-1027	Qualifying Wood Stoves	Biomass	Income	Deduction	Owner	-	100%	\$500	-
04.11	Arizona	§43-1083.02	Production of Electricity Using Renewable Energy Resources	Wind	Income	Credit	Producer	-	\$0.01/kwh	\$2 million	2020
04.11	Arizona	§43-1083.02	Production of Electricity Using Renewable Energy Resources	Solar Electric	Income	Credit	Producer	-	\$0.01-0.04/kwh	\$2 million	2020
04.11	Arizona	§43-1083.02	Production of Electricity Using Renewable Energy Resources	Biomass	Income	Credit	Producer	-	\$0.01/kwh	\$2 million	2020
04.12	Arizona	§42-5159(A)	Fuels Sold to Environmental Technology Facilities	Hydroelectric	Sales	Exemption	Purchaser	20	100%	-	-
04.12	Arizona	§42-5159(A)	Fuels Sold to Environmental Technology Facilities	Solar Thermal	Sales	Exemption	Purchaser	20	100%	-	-
04.12	Arizona	§42-5159(A)	Fuels Sold to Environmental Technology Facilities	Solar Electric	Sales	Exemption	Purchaser	20	100%	-	-
04.12	Arizona	§42-5159(A)	Fuels Sold to Environmental Technology Facilities	Biomass	Sales	Exemption	Purchaser	20	100%	-	-
04.12	Arizona	§42-5159(A)	Fuels Sold to Environmental Technology Facilities	Wind	Sales	Exemption	Purchaser	20	100%	-	-
04.12	Arizona	§42-5159(A)	Fuels Sold to Environmental Technology Facilities	Geothermal	Sales	Exemption	Purchaser	20	100%	-	-
04.13	Arizona	§43-1164.02	Solar Liquid Fuel	Alternative Fuel	Income	Credit	Researcher	-	40%	-	2021
04.13	Arizona	§43-1164.02	Solar Liquid Fuel	Alternative Fuel	Income	Credit	Seller	-	30%	\$20,000	2026
04.13	Arizona	§43-1164.02	Solar Liquid Fuel	Alternative Fuel	Income	Credit	Producer	-	\$0.11/gal	-	2026
04.14	Arizona	§42-5061.D	Environmental Technology Facilities	Hydroelectric	Sales	Exemption	Manufacturer	-	100%	-	-
04.14	Arizona	§42-5061.D	Environmental Technology Facilities	Solar Thermal	Sales	Exemption	Manufacturer	-	100%	-	-
04.14	Arizona	§42-5061.D	Environmental Technology Facilities	Solar Electric	Sales	Exemption	Manufacturer	-	100%	-	-
04.14	Arizona	§42-5061.D	Environmental Technology Facilities	Biomass	Sales	Exemption	Manufacturer	-	100%	-	-
04.14	Arizona	§42-5061.D	Environmental Technology Facilities	Wind	Sales	Exemption	Manufacturer	-	100%	-	-
04.14	Arizona	§42-5061.D	Environmental Technology Facilities	Geothermal	Sales	Exemption	Manufacturer	-	100%	-	-
04.15	Arizona	§43-1083.04	Manufacturing Investment in New Renewable Facilities	Solar	Income	Credit	Manufacturer	-	\$1 million / year	\$5 million	2017
04.15	Arizona	§43-1083.04	Manufacturing Investment in New Renewable Facilities	Wind	Income	Credit	Manufacturer	-	\$1 million / year	\$5 million	2017
04.15	Arizona	§43-1083.04	Manufacturing Investment in New Renewable Facilities	Biomass	Income	Credit	Manufacturer	-	\$1 million / year	\$5 million	2017
04.15	Arizona	§43-1083.04	Manufacturing Investment in New Renewable Facilities	Fuel cell	Income	Credit	Manufacturer	-	\$1 million / year	\$5 million	2017
04.16	Arizona	§42-5159(B)(5)	Energy Storage	Storage	Sales	Exemption	Utility	20	100%	-	-
05.00 Arkansas State Tax Incentives for Renewable Energy and Energy Efficiency											
05.01	Arkansas	§15-4-2803	Biodiesel Suppliers	Biodiesel	Income	Credit	Purchaser	-	5%	-	-
05.02	Arkansas	§26-51-512	Rice Straw	Ethanol	Income	Credit	Purchaser	-	\$15/ton	-	-
05.03	Arkansas	§26-52-401(11)	Retail Biodiesel Fuel	Biomass	Sales	Exemption	Purchaser	-	100%	-	-
05.04	Arkansas	§15-4-2703	Targeted Businesses	Various	Income	Credit	Employer	-	10%	\$100,000	-
05.05	Arkansas	§15-4-2703	Targeted Businesses	Various	Sales	Refund	Purchaser	-	100%	-	-
05.06	Arkansas	§26-51-313	Drop-In Biofuels Manufacturers	Biomass	Sales	Refund	Manufacturer	20	100%	-	2023

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
05.07	Arkansas	§26-51-2703	Wood Energy Products	Biomass	Income	Credit	Manufacturer	20	100%	-	2023
06.00	California State Tax Incentives for Renewable Energy and Energy Efficiency										
06.01	California	§73	Active Solar Energy Systems	Solar	Property	Exclusion	Owner	-	75-100%	-	2026
06.02	California	§5898.10	Municipal Energy Districts	Energy Efficiency	Property	Financing	Owner	20	Varies	-	-
06.02	California	§5898.10	Municipal Energy Districts	Various	Property	Financing	Owner	20	Varies	-	-
06.03	California	§17138.1	Alternative Energy System Vouchers	Fuel cell	Income	Exclusion	Rebate	-	100%	-	-
06.03	California	§17138.1	Alternative Energy System Vouchers	Solar	Income	Exclusion	Rebate	-	100%	-	-
06.03	California	§17138.1	Alternative Energy System Vouchers	Wind	Income	Exclusion	Rebate	-	100%	-	-
06.04	California	§17208.1	Loan Interest Financing Energy Efficient Products For Qualifying Residences	Energy Efficiency	Income	Deduction	Borrower	-	100%	-	-
06.05	California	§6010.8	Green Manufacturing Equipment	Cogeneration	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Energy Efficiency	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Biomass	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Geothermal	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Hydroelectric	Sales	Exemption	Purchaser	-	100%	-	2026
06.05	California	§6010.8	Green Manufacturing Equipment	Various	Sales	Exemption	Purchaser	-	100%	-	2026
06.06	California	§6377	Zero-emission technology transit bus	Electric Vehicle	Sales	Exemption	Seller	-	54%	-	2024
08.00	Colorado State Tax Incentives for Renewable Energy and Energy Efficiency										
08.01	Colorado	§31-20-101.3	Renewable Energy Systems	Solar Electric	Property	Credit	Owner	-	Varies	-	-
08.01	Colorado	§31-20-101.3	Renewable Energy Systems	Solar Thermal	Property	Credit	Owner	-	Varies	-	-
08.01	Colorado	§31-20-101.3	Renewable Energy Systems	Wind	Property	Credit	Owner	-	Varies	-	-
08.01	Colorado	§31-20-101.3	Renewable Energy Systems	Biomass	Property	Credit	Owner	-	Varies	-	-
08.01	Colorado	§31-20-101.3	Renewable Energy Systems	Geothermal	Property	Credit	Owner	-	Varies	-	-
08.01	Colorado	§31-20-101.3	Renewable Energy Systems	Various	Property	Credit	Owner	-	Varies	-	-
08.02	Colorado	§39-26-403	Qualifying Clean Technology	Solar	Sales	Refund	Purchaser	-	100%	\$50,000	2017
08.02	Colorado	§39-26-403	Qualifying Clean Technology	Wind	Sales	Refund	Purchaser	-	100%	\$50,000	2017
08.02	Colorado	§39-26-403	Qualifying Clean Technology	Biofuel	Sales	Refund	Purchaser	-	100%	\$50,000	2017
08.02	Colorado	§39-26-403	Qualifying Clean Technology	Geothermal	Sales	Refund	Purchaser	-	100%	\$50,000	2017
08.02	Colorado	§39-26-403	Qualifying Clean Technology	Energy Efficiency	Sales	Refund	Purchaser	-	100%	\$50,000	2017
08.02	Colorado	§39-26-403	Qualifying Clean Technology	Various	Sales	Refund	Purchaser	-	100%	\$50,000	2017
08.03	Colorado	§39-4-102(e)	Renewable Energy Property	Solar	Property	Assessment Utility	-	-	\$421-1,128/kW	-	-
08.03	Colorado	§39-4-102(e)	Renewable Energy Property	Biomass	Property	Assessment Utility	-	-	\$421-1,128/kW	-	-
08.03	Colorado	§39-4-102(e)	Renewable Energy Property	Wind	Property	Assessment Utility	-	-	\$421-1,128/kW	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Solar Thermal	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Solar Electric	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Wind	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Biomass	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Hydroelectric	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Geothermal	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Biodiesel	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Ethanol	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Fuel cell	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
08.04	Colorado	§30-11-107.3	Clean Energy Finance Districts	Various	Property	Financing	Owner	-	Varies	-	-
08.05	Colorado	§39-22-516.7	Innovative Motor Vehicles	Alternative Fuel	Income	Credit	Owner	-	Varies	\$2,000 - \$16,000	2028
08.05	Colorado	§39-22-516.7	Innovative Motor Vehicles	Electric Vehicle	Income	Credit	Owner	-	Varies	\$2,000 - \$16,000	2028
08.06	Colorado	§39-26-719	Clean Fuel Vehicle Property	Alternative Fuel	Sales	Exemption	Purchaser	-	100%	-	-
08.06	Colorado	§39-26-719	Clean Fuel Vehicle Property	Electric Vehicle	Sales	Exemption	Purchaser	-	100%	-	-
08.07	Colorado	§39-3-102	Leased Residential Solar Electric Generation Facilities	Solar Electric	Property	Exemption	Owner	-	100%	-	-
08.08	Colorado	§39-26-724	Solar Thermal, Biogas Production and Wind Systems	Solar Thermal	Sales	Exemption	Purchaser	-	100%	-	2017
08.08	Colorado	§39-26-724	Solar Thermal, Biogas Production and Wind Systems	Biogas	Sales	Exemption	Purchaser	-	100%	-	2019
08.08	Colorado	§39-26-724	Solar Thermal, Biogas Production and Wind Systems	Wind	Sales	Exemption	Purchaser	-	100%	-	-
08.09	Colorado	§38-30.7-105	Wind Energy Equipment	Wind	Property	Exemption	Owner	-	100%	-	-
08.10	Colorado	§39-3-118.7	Community Solar Gardens	Solar Electric	Property	Exemption	Owner	-	100%	-	2020
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Solar	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Methane	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Wind	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Biomass	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Hydroelectric	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Geothermal	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Alternative Fuel	Income	Credit	Owner	-	3%	\$750,000	-
08.11	Colorado	§39-30-104	Enterprise Zone Property Investment	Fuel cell	Income	Credit	Owner	-	3%	\$750,000	-
08.12	Colorado	§39-3-122	Agrioltaics	Solar	Property	Exemption	Owner	-	100%	-	2029
08.13	Colorado	§39-26-732	Heat Pump Systems	Energy Efficiency	Property	Exemption	Owner	-	100%	-	2023
08.14	Colorado	§39-22-545	Heat Pump Systems	Energy Efficiency	Income	Credit	User	-	10%	-	2023
08.15	Colorado	§39-22-551	Industrial Clean Energy	Various	Income	Credit	Owner	-	30-50%	-	2032
08.16	Colorado	§39-22-552	Geothermal Energy Project	Geothermal	Income	Credit	Owner	-	30-50%	\$5 million	2032
08.17	Colorado	§39-22-553	Geothermal Electricity Generation Production	Geothermal	Income	Credit	Owner	-	\$0.003/KWh	\$5 million	2032
08.18	Colorado	§39-22-554	Heat Pump Technology and Thermal Energy Networks	Geothermal	Income	Credit	Installer	-	\$250-\$3,000	-	2032

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
08.19	Colorado	§39-22-555	Electric Bicycles	Electric Vehicle	Income	Credit	Retailer	-	\$250-\$3,000	-	2032
08.20	Colorado	§39-22-556	Sustainable Aviation Fuel	Alternative Fuel	Income	Credit	Owner	-	30%	-	2032
08.21	Colorado	§39-22-557	Clean Hydrogen	Alternative Fuel	Income	Credit	User	-	\$0.33 - 1.00/kg	-	2032
08.21	Colorado	§39-3-138	Electric Vehicle Charging Systems	Electric Vehicle	Property	Exemption	Owner	-	100%	-	2029
09.00 Connecticut State Tax Incentives for Renewable Energy and Energy Efficiency											
09.01	Connecticut	§12-412 (117)	Solar And Geothermal Systems	Solar	Sales	Exemption	Purchaser	-	100%	-	-
09.01	Connecticut	§12-412 (117)	Solar And Geothermal Systems	Geothermal	Sales	Exemption	Purchaser	-	100%	-	-
09.02	Connecticut	§12-214(a)	Alternative Energy And Motor Vehicle Systems	Solar	Business	Exemption	Manufacturer	-	100%	-	-
09.02	Connecticut	§12-214(a)	Alternative Energy And Motor Vehicle Systems	Wind	Business	Exemption	Manufacturer	-	100%	-	-
09.02	Connecticut	§12-214(a)	Alternative Energy And Motor Vehicle Systems	Hydroelectric	Business	Exemption	Manufacturer	-	100%	-	-
09.02	Connecticut	§12-214(a)	Alternative Energy And Motor Vehicle Systems	Biomass	Business	Exemption	Manufacturer	-	100%	-	-
09.02	Connecticut	§12-214(a)	Alternative Energy And Motor Vehicle Systems	Alternative Fuel	Business	Exemption	Manufacturer	-	100%	-	-
09.02	Connecticut	§12-214(a)	Alternative Energy And Motor Vehicle Systems	Electric Vehicle	Business	Exemption	Manufacturer	-	100%	-	-
09.03	Connecticut	§12-412(113)	Fuel Cell Manufacturing Facilities	Fuel cell	Sales	Exemption	Purchaser	-	100%	-	-
09.04	Connecticut	§16-46e(d)	State Rebates For Efficient Furnaces And Boilers	Energy Efficiency	Income	Exclusion	Rebate	-	\$500	-	-
09.05	Connecticut	§12-587	Sales Or Import Of Alternative Fuel Commercial Heating Oil	Alternative Fuel	Income	Exemption	Seller	-	100%	-	-
09.06	Connecticut	§12-217mm	Energy Efficient Green Building	Energy Efficiency	Income	Credit	Owner	-	5-11%	\$150-250/SF	2017
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Fuel cell	Property	Exemption	Owner	-	100%	-	-
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Methane	Property	Exemption	Owner	-	100%	-	-
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Marine	Property	Exemption	Owner	-	100%	-	-
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Hydroelectric	Property	Exemption	Owner	-	100%	-	-
09.07	Connecticut	§12-81(56),(57)	Renewable Energy Systems	Biomass	Property	Exemption	Owner	-	100%	-	-
09.08	Connecticut	§12-412k	Residential Energy-Efficient Products	Energy Efficiency	Sales	Exemption	Purchaser	-	100%	-	-
09.09	Connecticut	§12-635	Energy Conservation Programs Serving Low-Income Persons	Energy Efficiency	Income	Credit	Investor	-	60-100%	-	-
09.10	Connecticut	§12-81(81)	Exemption for zero emission school buses	Electric Vehicle	Property	Exemption	Owner	-	100%	-	-
09.11	Connecticut	§12-81(80)	Exemption for EV charging stations	Electric Vehicle	Property	Exemption	Owner	-	100%	-	-
09.11	Connecticut	§12-81(80)	Exemption for EV charging stations	Fuel Cell	Property	Exemption	Owner	-	100%	-	-
10.00 Delaware State Tax Incentives for Renewable Energy and Energy Efficiency											
10.01	Delaware	30 §2040	Clean Energy Manufacturing Jobs	Solar	Income	Credit	Manufacturer	-	\$750/Job & \$100k	\$500,000	-
10.01	Delaware	30 §2040	Clean Energy Manufacturing Jobs	Fuel cell	Income	Credit	Manufacturer	-	\$750/Job & \$100k	\$500,000	-
10.01	Delaware	30 §2040	Clean Energy Manufacturing Jobs	Wind	Income	Credit	Manufacturer	-	\$750/Job & \$100k	\$500,000	-
10.01	Delaware	30 §2040	Clean Energy Manufacturing Jobs	Geothermal	Income	Credit	Manufacturer	-	\$750/Job & \$100k	\$500,000	-
11.00 District of Columbia State Tax Incentives for Renewable Energy and Energy Efficiency											
11.01	District of Columbia	§47-1508(a)(12)	Cogeneration Equipment Personal Property Tax Exemption	Cogeneration	Property	Exemption	Owner	-	100%	-	-
11.02	District of Columbia	§47-1508(a)(11)	Solar Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
11.03	District of Columbia	§47-1806.12	Alternative Fuel Infrastructure	Electric Vehicle	Income	Credit	Owner	-	50%	\$1,000; \$10,000	2026
11.03	District of Columbia	§47-1806.12	Alternative Fuel Infrastructure	Alternative Fuel	Income	Credit	Owner	-	50%	\$1,000; \$10,000	2026
11.04	District of Columbia	§47-1806.13	Alternative Fuel Vehicle Conversion	Electric Vehicle	Income	Credit	Owner	-	50%	\$19,000	2026
11.04	District of Columbia	§47-1806.13	Alternative Fuel Vehicle Conversion	Alternative Fuel	Income	Credit	Owner	-	50%	\$19,000	2026
12.00 Florida State Tax Incentives for Renewable Energy and Energy Efficiency											
12.01	Florida	§193.624	Residential Renewable Energy Source Devices	Solar	Property	Exemption	Owner	10	80-100%	-	2037
12.01	Florida	§193.624	Residential Renewable Energy Source Devices	Wind	Property	Exemption	Owner	10	80-100%	-	2037
12.01	Florida	§193.624	Residential Renewable Energy Source Devices	Geothermal	Property	Exemption	Owner	10	80-100%	-	2037
12.02	Florida	§220.193	Renewable Energy Production	Biomass	Income	Credit	Producer	-	\$0.01/kWh	\$1 million	2016
12.02	Florida	§220.193	Renewable Energy Production	Solar	Income	Credit	Producer	-	\$0.01/kWh	\$1 million	2016
12.02	Florida	§220.193	Renewable Energy Production	Geothermal	Income	Credit	Producer	-	\$0.01/kWh	\$1 million	2016
12.02	Florida	§220.193	Renewable Energy Production	Wind	Income	Credit	Producer	-	\$0.01/kWh	\$1 million	2016
12.02	Florida	§220.193	Renewable Energy Production	Marine	Income	Credit	Producer	-	\$0.01/kWh	\$1 million	2016
12.02	Florida	§220.193	Renewable Energy Production	Hydroelectric	Income	Credit	Producer	-	\$0.01/kWh	\$1 million	2016
12.03	Florida	§220.192	Alternative Fuel Vehicle Property	Biomass	Income	Credit	Investor	-	75%	\$1 million	2016
12.03	Florida	§220.192	Alternative Fuel Vehicle Property	Biodiesel	Income	Credit	Investor	-	75%	\$1 million	2016
12.03	Florida	§220.192	Alternative Fuel Vehicle Property	Ethanol	Income	Credit	Investor	-	75%	\$1 million	2016
12.04	Florida	§212.08(7)(hh)	Solar Energy Systems	Solar	Sales	Exemption	Purchaser	-	100%	-	-
12.05	Florida	§212.08(7)(hhh)	Alternative Fuel Distribution Property	Biomass	Sales	Refund	Purchaser	-	100%	-	2016
12.05	Florida	§212.08(7)(hhh)	Alternative Fuel Distribution Property	Biodiesel	Sales	Refund	Purchaser	-	100%	-	2016
12.05	Florida	§212.08(7)(hhh)	Alternative Fuel Distribution Property	Ethanol	Sales	Refund	Purchaser	-	100%	-	2016
12.06	Florida	L. 2014-38, §21	New Energy Star and WaterSense Products	Energy Efficiency	Sales	Exemption	Purchaser	Annual	100%	-	-
13.00 Georgia State Tax Incentives for Renewable Energy and Energy Efficiency											
13.01	Georgia	§48-8-3(83)	Biomass Materials	Biomass	Sales	Exemption	Purchaser	-	100%	-	-
13.02	Georgia	§48-8-3(82)	Energy-Efficient Products	Energy Efficiency	Sales	Exemption	Purchaser	Annual	100%	-	-
13.03	Georgia	§48-7-40	Alternative Energy Manufacturing	Solar	Income	Credit	Manufacturer	5	\$4,000 / job	-	-
13.03	Georgia	§48-7-40	Alternative Energy Manufacturing	Wind	Income	Credit	Manufacturer	5	\$4,000 / job	-	-
13.03	Georgia	§48-7-40	Alternative Energy Manufacturing	Electric Vehicle	Income	Credit	Manufacturer	5	\$4,000 / job	-	-
13.03	Georgia	§48-7-40	Alternative Energy Manufacturing	Biofuel	Income	Credit	Manufacturer	5	\$4,000 / job	-	-
13.03	Georgia	§48-7-40	Alternative Energy Manufacturing	Biomass	Income	Credit	Manufacturer	5	\$4,000 / job	-	-
13.04	Georgia	§48-7-29.18	Alternative Fuel Vehicles	Electric Vehicle	Income	Credit	Purchaser	-	\$12,000/\$20,000	\$250,000	2017
13.04	Georgia	§48-7-29.18	Alternative Fuel Vehicles	Alternative Fuel	Income	Credit	Purchaser	-	\$12,000/\$20,000	\$250,000	2017
15.00 Hawaii State Tax Incentives for Renewable Energy and Energy Efficiency											

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
15.01	Hawaii	§235-7.3	Royalty Income From High Technology Business Intellectual Property	Various	Income	Exclusion	Investor	-	100%	-	-
15.02	Hawaii	§235-12.5	Renewable Energy Technologies	Wind	Income	Credit	Owner	-	20%	\$500,000 / \$1,500/Unit	-
15.02	Hawaii	§235-12.5	Renewable Energy Technologies	Solar electric	Income	Credit	Owner	-	35%	\$500,000 / \$5,000/Unit	-
15.02	Hawaii	§235-12.5	Renewable Energy Technologies	Solar Thermal	Income	Credit	Owner	-	35%	\$250,000 / \$2,250/Unit	2009
15.03	Hawaii	§209E-2	Enterprise Zone Wind Farm Businesses	Wind	Income	Credit	Producer	7	20-80%	-	-
15.04	Hawaii	§235-110.31	Renewable Fuels Production	Biomass	Income	Credit	Owner	5	20¢ per 76k BTU	\$3 million	2021
15.05	Hawaii	§246-34.7	Alternative Energy Improvements	Methane	Property	Exemption	Owner	25	100%	-	-
15.05	Hawaii	§246-34.7	Alternative Energy Improvements	Wind	Property	Exemption	Owner	25	100%	-	-
15.05	Hawaii	§246-34.7	Alternative Energy Improvements	Solar	Property	Exemption	Owner	25	100%	-	-
15.05	Hawaii	§246-34.7	Alternative Energy Improvements	Marine	Property	Exemption	Owner	25	100%	-	-
16.00 Idaho State Tax Incentives for Renewable Energy and Energy Efficiency											
16.01	Idaho	§63-3502B	Wind, Solar And Geothermal Energy Producers	Wind	Property	Abatement	Producer	-	100%	-	-
16.01	Idaho	§63-3502B	Wind, Solar And Geothermal Energy Producers	Solar	Property	Abatement	Producer	-	100%	-	-
16.01	Idaho	§63-3502B	Wind, Solar And Geothermal Energy Producers	Geothermal	Property	Abatement	Producer	-	100%	-	-
16.02	Idaho	§63-3022B	Residential Energy Efficiency Upgrades	Energy Efficiency	Income	Deduction	Owner	-	100%	-	-
16.03	Idaho	§63-3022C	Residential Alternative Energy Devices	Solar	Income	Deduction	Owner	4	100%	\$5,000	-
16.03	Idaho	§63-3022C	Residential Alternative Energy Devices	Wind	Income	Deduction	Owner	4	100%	\$5,000	-
16.03	Idaho	§63-3022C	Residential Alternative Energy Devices	Geothermal	Income	Deduction	Owner	4	100%	\$5,000	-
17.00 Illinois State Tax Incentives for Renewable Energy and Energy Efficiency											
17.01	Illinois	35 §200/10-10	Solar and Wind Energy Property	Solar	Property	Exemption	Owner	-	100%	-	2016
17.01	Illinois	35 §200/10-10	Solar and Wind Energy Property	Wind	Property	Exemption	Owner	-	100%	\$108,000/Mw valuation	2021
17.02	Illinois	35 §10/5	Renewable Energy and Conservation Job Creation	Various	Income	Credit	Employer	10 or 15	Varies	-	-
17.03	Illinois	35 §105/3-10	Alternative Fuel Purchase	Alternative Fuel	Sales	Exemption	Purchaser	-	20%	-	2018
17.04	Illinois	35 §5/236	REV Illinois	Various	Income	Credit	Manufacturer	10 or 15	75-85%	-	2027
17.04	Illinois	35 §5/236	REV Construction Jobs	Various	Income	Credit	Manufacturer	10 or 15	50%	-	2027
17.04	Illinois	35 §5/236	REV Investment Tax Credit	Various	Income	Credit	Manufacturer	10 or 15	0.5%	-	2027
17.05	Illinois	35 §120/5m	Building materials exemptions for REV project sites	Various	Sales	Exemption	Purchaser	-	100.0%	-	2027
17.06	Illinois	35 §105/3-87	Sustainable Aviation Fuel	Alternative Fuel	Income	Credit	Purchaser	-	\$1.50/gal	-	2032
17.07	Illinois	35 §5/240	Hydrogen Fuel Replacement	Alternative Fuel	Income	Credit	User	-	\$1.00/gal	-	2028
18.00 Indiana State Tax Incentives for Renewable Energy and Energy Efficiency											
18.01	Indiana	§6-1.1-12-26	Renewable Energy Property	Solar	Property	Exemption	Owner	-	100%	-	-
18.01	Indiana	§6-1.1-12-26	Renewable Energy Property	Wind	Property	Exemption	Owner	-	100%	-	-
18.01	Indiana	§6-1.1-12-26	Renewable Energy Property	Hydroelectric	Property	Exemption	Owner	-	100%	-	-
18.01	Indiana	§6-1.1-12-26	Renewable Energy Property	Geothermal	Property	Exemption	Owner	-	100%	-	-
18.02	Indiana	§6-3.1-1	Alternative Fuel Vehicle Manufacturing	Alternative Fuel	Income	Credit	Manufacturer	-	15%	-	2016
18.02	Indiana	§6-3.1-1	Alternative Fuel Vehicle Manufacturing	Electric Vehicle	Income	Credit	Manufacturer	-	15%	-	2016
18.03	Indiana	§6-3-2-5	Installation Of Insulation	Energy Efficiency	Income	Deduction	Owner	-	100%	\$1,000	-
18.04	Indiana	§6-2.5-5-10-5	Utility Scale Batter Energy Storage Systems	Storage	Sales	Exemption	Utility	-	100%	-	-
19.00 Iowa State Tax Incentives for Renewable Energy and Energy Efficiency											
19.01	Iowa	§476C	Wind And Other Renewable Energy Purchase And Production	Wind	Income	Credit	Producer	10	\$0.015/kwh	-	2017
19.01	Iowa	§476C	Wind And Other Renewable Energy Purchase And Production	Biomass	Income	Credit	Producer	10	\$0.015/kwh	-	2017
19.01	Iowa	§476C	Wind And Other Renewable Energy Purchase And Production	Solar	Income	Credit	Producer	10	\$0.015/kwh	-	2017
19.01	Iowa	§476C	Wind And Other Renewable Energy Purchase And Production	Methane	Income	Credit	Producer	10	\$4.50/ mBTU	-	2017
19.01	Iowa	§476C	Wind And Other Renewable Energy Purchase And Production	Fuel cell	Income	Credit	Producer	10	\$0.44/th ft3	-	2017
19.02	Iowa	§441.21(8)	Solar And Wind Energy Systems and Biofuel Production	Solar	Property	Exemption	Owner	5	100%	-	-
19.02	Iowa	§441.21(8)	Solar And Wind Energy Systems and Biofuel Production	Biofuel	Property	Exemption	Owner	5	100%	-	-
19.02	Iowa	§441.21(8)	Solar And Wind Energy Systems and Biofuel Production	Wind	Property	Exemption	Owner	5	100%	-	-
19.03	Iowa	§423.3(54.90)	Hydroelectric, Wind And Solar Energy Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-
19.03	Iowa	§423.3(54.90)	Hydroelectric, Wind And Solar Energy Equipment	Hydroelectric	Sales	Exemption	Purchaser	-	100%	-	-
19.03	Iowa	§423.3(54.90)	Hydroelectric, Wind And Solar Energy Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	-
19.04	Iowa	§427B.26	Wind Energy Devices	Wind	Property	Assessment	Owner	20	0-30%	-	-
19.05	Iowa	§437A.3(27)	Methane Gas, Cogeneration And Wind Energy Conversion Property	Methane	Replacement	Exemption	Owner	-	100%	-	-
19.05	Iowa	§437A.3(27)	Methane Gas, Cogeneration And Wind Energy Conversion Property	Cogeneration	Replacement	Exemption	Owner	-	100%	-	-
19.05	Iowa	§437A.3(27)	Methane Gas, Cogeneration And Wind Energy Conversion Property	Wind	Replacement	Exemption	Owner	-	100%	-	-
19.05	Iowa	§437A.3(27)	Methane Gas, Cogeneration And Wind Energy Conversion Property	Hydroelectric	Replacement	Exemption	Owner	-	100%	\$0.000001847/kWh	-
19.06	Iowa	§427.1(29)	Methane Gas Conversion Property	Methane	Property	Exemption	Owner	-	100%	-	-
19.07	Iowa	§422.11P	Retail Biodiesel Blended Fuel Sold	Biodiesel	Income	Credit	Seller	-	\$0.045/gal	-	2027
19.08	Iowa	§422.11O	Retail E-85 Gasoline Sales	Ethanol	Income	Credit	Seller	-	\$0.16/gal	-	2027
19.09	Iowa	§422.33(11A)	Retail Ethanol Sales	Ethanol	Income	Credit	Seller	-	\$0.04-0.08/gal	-	2020
19.10	Iowa	§422.33(11D)	Retail E-15 Gasoline Sales	Ethanol	Income	Credit	Seller	-	\$0.03-0.10/gal	-	2025
19.11	Iowa	§422.11I	Residential Geothermal Heat Pumps	Geothermal	Income	Credit	Owner	-	6%	-	-
19.12	Iowa	§427.38	Residential Geothermal Heat Pumps	Geothermal	Property	Exemption	Owner	-	100%	-	2020
19.13	Iowa	§422.11L	Solar Energy Systems	Solar	Income	Credit	Owner	-	15%	\$5,000 / \$20,000	2021
19.14	Iowa	§423.4(9)	Biodiesel Blended Fuel	Biodiesel	Sales	Refund	Purchaser	-	\$0.02/gal	\$500,000	2024
19.15	Iowa	§422.10A	Geothermal Heat Pumps	Geothermal	Income	Credit	Owner	-	10%	-	-
20.00 Kansas State Tax Incentives for Renewable Energy and Energy Efficiency											
20.01	Kansas	§79-201	Renewable Energy Equipment	Wind	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Solar	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Solar electric	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Biomass	Property	Exemption	Owner	-	100%	-	2016

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
20.01	Kansas	§79-201	Renewable Energy Equipment	Hydroelectric	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Fuel cell	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Geothermal	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Methane	Property	Exemption	Owner	-	100%	-	2016
20.01	Kansas	§79-201	Renewable Energy Equipment	Various	Property	Exemption	Owner	-	100%	-	2016
20.02	Kansas	§79-32,201	Alternative-Fuel Motor Vehicles And Fueling Stations	Alternative Fuel	Income	Credit	Purchaser	-	40%	\$100,000 / \$2,400-40,000	-
20.03	Kansas	§79-32,255	Biofuel Storage And Blending Equipment	Biofuel	Income	Deduction	Owner	10	55%	-	-
20.04	Kansas	§79-32,232	Biofuel Storage And Blending Equipment	Biofuel	Property	Exemption	Owner	10	100%	-	-
20.05	Kansas	§79-32,237	Biomass-to-Energy Plant Property	Biofuel	Income	Deduction	Owner	10	55%	-	-
20.06	Kansas	§79-229	Biomass-to-Energy Plant Property	Biofuel	Property	Exemption	Owner	10	100%	-	-
20.07	Kansas	§79-32,249	Renewable Electric Cogeneration Facility	Cogeneration	Income	Deduction	Investor	10	55%	-	-
20.08	Kansas	§66-104	Electricity Sold Through EV Charging Stations	Electric Vehicles	Sales	Exemption	Utilities	-	100%	-	-
21.00 Kentucky State Tax Incentives for Renewable Energy and Energy Efficiency											
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Solar	Income	Credit	Producer	-	50%	-	-
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Wind	Income	Credit	Producer	-	50%	-	-
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Biomass	Income	Credit	Producer	-	50%	-	-
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Methane	Income	Credit	Producer	-	50%	-	-
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Hydroelectric	Income	Credit	Producer	-	50%	-	-
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Alternative Fuel	Income	Credit	Producer	-	50%	-	-
21.01	Kentucky	§154.27-010	Renewable Energy Facilities	Various	Income	Credit	Producer	-	50%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Solar	Sales	Exemption	Purchaser	25	100%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Wind	Sales	Exemption	Purchaser	25	100%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Biomass	Sales	Exemption	Purchaser	25	100%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Methane	Sales	Exemption	Purchaser	25	100%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Hydroelectric	Sales	Exemption	Purchaser	25	100%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Alternative Fuel	Sales	Exemption	Purchaser	25	100%	-	-
21.02	Kentucky	§154.27-010	Renewable Energy Facilities	Various	Sales	Exemption	Purchaser	25	100%	-	-
21.03	Kentucky	§141.422	Biodiesel And Renewable Diesel	Biodiesel	Income	Credit	Producer	-	\$1.00/gal	-	-
21.04	Kentucky	§141.4244	Cellulosic Ethanol Or Ethanol Fuel	Ethanol	Income	Credit	Producer	-	\$1.00/gal	-	-
21.05	Kentucky	§139.518	Energy Efficient Manufacturing Machinery And Equipment	Energy Efficiency	Sales	Exemption	Purchaser	25	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Solar	Sales	Refund	Purchaser	5	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Wind	Sales	Refund	Purchaser	5	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Biomass	Sales	Refund	Purchaser	5	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Methane	Sales	Refund	Purchaser	5	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Hydroelectric	Sales	Refund	Purchaser	5	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Alternative Fuel	Sales	Refund	Purchaser	5	100%	-	-
21.06	Kentucky	§154.27-070	Renewable Energy Facilities	Various	Sales	Refund	Purchaser	5	100%	-	-
21.07	Kentucky	§65	Energy Project Assessment Districts	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
21.07	Kentucky	§65	Energy Project Assessment Districts	Solar	Property	Financing	Owner	-	Varies	-	-
21.07	Kentucky	§65	Energy Project Assessment Districts	Wind	Property	Financing	Owner	-	Varies	-	-
21.07	Kentucky	§65	Energy Project Assessment Districts	Fuel cell	Property	Financing	Owner	-	Varies	-	-
21.07	Kentucky	§65	Energy Project Assessment Districts	Geothermal	Property	Financing	Owner	-	Varies	-	-
21.07	Kentucky	§65	Energy Project Assessment Districts	Various	Property	Financing	Owner	-	Varies	-	-
21.08	Kentucky	§154.48-010	Kentucky Environmental Stewardship	Energy Efficiency	Income	Credit	Manufacturer	-	100%	-	-
21.08	Kentucky	§154.48-010	Kentucky Environmental Stewardship	Various	Income	Credit	Manufacturer	-	100%	-	-
22.00 Louisiana State Tax Incentives for Renewable Energy and Energy Efficiency											
22.01	Louisiana	§47:6030	Residential Solar Electric Systems	Solar electric	Income	Credit	Owner	-	38-50%	\$7,600-10,000	2016
22.02	Louisiana	§47:6037	Green Job Industry Investments	Energy Efficiency	Income	Credit	Investor	-	10-25%	\$1 million	2017
22.02	Louisiana	§47:6037	Green Job Industry Investments	Biofuel	Income	Credit	Investor	-	10-25%	\$1 million	2017
22.02	Louisiana	§47:6037	Green Job Industry Investments	Various	Income	Credit	Investor	-	10-25%	\$1 million	2017
22.03	Louisiana	§33:130.790	Sustainable Energy Financing Districts	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
22.04	Louisiana	§47:6035	Qualified Clean-Burning Motor Vehicle Fuel Property	Alternative Fuel	Income	Credit	Purchaser	-	30%	-	2021
22.04	Louisiana	§47:6035	Qualified Clean-Burning Motor Vehicle Fuel Property	Electric Vehicle	Income	Credit	Purchaser	-	30%	-	2021
22.05	Louisiana	§47:1706	Residential Solar Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
22.06	Louisiana	§47:301(7)(j)	Unblended Biodiesel	Biodiesel	Sales	Exemption	Purchaser	-	100%	-	-
23.00 Maine State Tax Incentives for Renewable Energy and Energy Efficiency											
23.01	Maine	36 §2017	Qualifying Community Wind Energy Property	Wind	Sales	Refund	Purchaser	-	100%	-	-
23.02	Maine	36 §5219-X	Biofuel Production	Biofuel	Income	Credit	Producer	-	\$0.05/gal	-	-
23.03	Maine	36 §655 sub §1K,U	Solar and Wind Energy Equipment	Solar	Property	Exemption	Owner	-	100%	-	-
23.03	Maine	36 §655 sub §1K,U	Solar and Wind Energy Equipment	Wind	Property	Exemption	Owner	-	100%	-	-
23.04	Maine	36 §2021	Battery Energy Storage Systems	Storage	Sales	Refund	Purchaser	-	100%	-	2025
24.00 Maryland State Tax Incentives for Renewable Energy and Energy Efficiency											
24.01	Maryland	§10-720	Renewable Energy Production	Wind	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Geothermal	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Solar	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Hydroelectric	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Irrigation	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Methane	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Biomass	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018
24.01	Maryland	§10-720	Renewable Energy Production	Various	Income	Credit	Producer	5	\$0.0085/kWh	\$2.5 million	2018

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
24.02	Maryland	§9-203	Solar, Geothermal, And Energy Conservation Devices	Solar	Property	Credit	Owner	-	100%	-	-
24.02	Maryland	§9-203	Solar, Geothermal, And Energy Conservation Devices	Geothermal	Property	Credit	Owner	-	100%	-	-
24.02	Maryland	§9-203	Solar, Geothermal, And Energy Conservation Devices	Energy Efficiency	Property	Credit	Owner	-	100%	-	-
24.03	Maryland	§7-242	Renewable Energy Systems	Geothermal	Property	Exemption	Owner	-	100%	-	-
24.03	Maryland	§7-242	Renewable Energy Systems	Solar electric	Property	Exemption	Owner	-	100%	-	-
24.03	Maryland	§7-242	Renewable Energy Systems	Solar Thermal	Property	Exemption	Owner	-	100%	-	-
24.03	Maryland	§7-242	Renewable Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
24.04	Maryland	§9-1501	Renewable Energy And Energy-Efficiency Systems	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
24.04	Maryland	§9-1501	Renewable Energy And Energy-Efficiency Systems	Various	Property	Financing	Owner	-	Varies	-	-
24.05	Maryland	§11-230	Geothermal, Solar And Wind Energy Equipment	Geothermal	Sales	Exemption	Purchaser	-	100%	-	-
24.05	Maryland	§11-230	Geothermal, Solar And Wind Energy Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-
24.05	Maryland	§11-230	Geothermal, Solar And Wind Energy Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	-
24.06	Maryland	§8-240	Solar And Geothermal Heating And Cooling Systems	Solar	Property	Exemption	Owner	-	100%	-	-
24.06	Maryland	§8-240	Solar And Geothermal Heating And Cooling Systems	Geothermal	Property	Exemption	Owner	-	100%	-	-
24.07	Maryland	§10-726	Cellulosic Ethanol Technology Research And Development	Ethanol	Income	Credit	Researcher	-	10%	-	2016
24.08	Maryland	§9-242	LEED Silver Or Better Green Buildings	Energy Efficiency	Property	Credit	Owner	-	100%	-	-
24.09	Maryland	§11-207	Wood Heating Fuel	Biofuel	Sales	Exemption	Purchaser	-	100%	-	-
24.10	Maryland	§5A-303	Heritage Structure Rehabilitation	Energy Efficiency	Income	Credit	Owner	-	25%	\$3 million	2022
24.11	Maryland	§11-226	Energy-Efficient Equipment	Energy Efficiency	Sales	Exemption	Purchaser	-	100%	-	-
24.12	Maryland	§11-207(a)	Solar And Residential Wind Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-
24.12	Maryland	§11-207(a)	Solar And Residential Wind Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	-
24.13	Maryland	§11-210(e)	Energy Star Windows and Doors Manufacturing Equipment	Energy Efficiency	Sales	Exemption	Manufacturer	-	100%	-	-
24.14	Maryland	§10-719	Energy Storage Systems	Storage	Income	Credit	Owner	-	100%	\$150,000	2024
24.15	Maryland	§13-815	Maryland Excise Tax Credit	Electric Vehicle	Excise	Credit	Purchaser	-	Varies	\$30,000	2026
24.16	Maryland	§7-237	Community Solar Energy Generating Systems	Solar Various	Property	Exemption	Owner	-	100%	-	2025
25.00 Massachusetts State Tax Incentives for Renewable Energy and Energy Efficiency											
25.01	Massachusetts	63 §38H	Solar Or Wind Powered Systems	Solar	Income	Deduction	Owner	-	100%	-	-
25.01	Massachusetts	63 §38H	Solar Or Wind Powered Systems	Wind	Income	Deduction	Owner	-	100%	-	-
25.02	Massachusetts	59 §5 (45, 45A, 45E)	Renewable Energy Property	Solar	Property	Exemption	Owner	20	100%	-	-
25.02	Massachusetts	59 §5 (45, 45A, 45E)	Renewable Energy Property	Wind	Property	Exemption	Owner	20	100%	-	-
25.02	Massachusetts	59 §5 (45, 45A, 45E)	Renewable Energy Property	Fuel Cell	Property	Exemption	Owner	20	100%	-	-
25.02	Massachusetts	59 §5 (45, 45A, 45E)	Renewable Energy Property	Hydroelectric	Property	Exemption	Owner	20	100%	-	-
25.03	Massachusetts	62 §2(a)(2)(G)	Energy Conservation Or Alternative Energy Patents	Energy Efficiency	Income	Deduction	Owner	5	100%	-	-
25.03	Massachusetts	62 §2(a)(2)(G)	Energy Conservation Or Alternative Energy Patents	Various	Income	Deduction	Owner	5	100%	-	-
25.04	Massachusetts	62 §6(d)	Renewable Energy Systems In Primary Residences	Solar	Income	Credit	Owner	-	15%	\$1,000	-
25.04	Massachusetts	62 §6(d)	Renewable Energy Systems In Primary Residences	Wind	Income	Credit	Owner	-	15%	\$1,000	-
25.05	Massachusetts	64H §6(dd)	Renewable Energy Equipment In Primary Residences	Solar	Sales	Exemption	Purchaser	-	100%	-	-
25.05	Massachusetts	64H §6(dd)	Renewable Energy Equipment In Primary Residences	Wind	Sales	Exemption	Purchaser	-	100%	-	-
25.05	Massachusetts	64H §6(dd)	Renewable Energy Equipment In Primary Residences	Geothermal	Sales	Exemption	Purchaser	-	100%	-	-
25.06	Massachusetts	64H §6(s)	Wind Turbine Equipment in Furnishing Electricity	Wind	Sales	Exemption	Purchaser	-	100%	-	-
25.07	Massachusetts	64A §1	Cellulosic Biofuel	Biofuel	Sales	Exemption	Purchaser	-	\$0.21/gal	-	2017
25.08	Massachusetts	62 §6(aa)-(bb)	Offshore Wind	Wind	Income	Credit	Owner	-	50%	-	-
26.00 Michigan State Tax Incentives for Renewable Energy and Energy Efficiency											
26.01	Michigan	§125.2681	Renewable Energy Renaissance Zones	Wind	Varies	Abatement	Owner	15	100%	-	-
26.01	Michigan	§125.2681	Renewable Energy Renaissance Zones	Solar	Varies	Abatement	Owner	15	100%	-	-
26.01	Michigan	§125.2681	Renewable Energy Renaissance Zones	Biomass	Varies	Abatement	Owner	15	100%	-	-
26.01	Michigan	§125.2681	Renewable Energy Renaissance Zones	Biodiesel	Varies	Abatement	Owner	15	100%	-	-
26.01	Michigan	§125.2681	Renewable Energy Renaissance Zones	Fuel cell	Varies	Abatement	Owner	15	100%	-	-
26.01	Michigan	§125.2681	Renewable Energy Renaissance Zones	Various	Varies	Abatement	Owner	15	100%	-	-
26.02	Michigan	§211.9(j)	Biomass Gasification And Methane Digester Property	Biomass	Property	Exemption	Owner	-	100%	-	-
26.03	Michigan	§207.1008	Biofuel	Biofuel	Sales	Exemption	Purchaser	-	to \$0.12/gal	-	-
26.04	Michigan	§211.9(i)	Alternative Energy Personal Property	Various	Property	Exemption	Owner	-	100%	-	-
26.05	Michigan	§211.27(p)	Alternative Energy Systems on Residential Property	Various	Property	Exemption	Owner	-	100%	-	-
26.06	Michigan	§211.9(f)	Solar Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
27.00 Minnesota State Tax Incentives for Renewable Energy and Energy Efficiency											
27.01	Minnesota	§272.028	Solar Electric And Wind Systems	Solar electric	Property	Exemption	Owner	-	100%	-	-
27.01	Minnesota	§272.028	Solar Electric And Wind Systems	Wind	Property	Exemption	Owner	-	100%	\$0.00012 /kWh	-
27.02	Minnesota	§297A.67	Solar Energy Systems	Solar	Sales	Exemption	Purchaser	-	100%	-	-
27.03	Minnesota	§297A.68	Wind Energy Conversion Systems	Wind	Sales	Exemption	Purchaser	-	100%	-	-
27.04	Minnesota	§216B.241	Renewable Energy and Energy-Efficiency Systems	Solar Thermal	Property	Financing	Owner	20	Varies	10% of value	-
27.04	Minnesota	§216B.241	Renewable Energy and Energy-Efficiency Systems	Solar electric	Property	Financing	Owner	20	Varies	10% of value	-
27.04	Minnesota	§216B.241	Renewable Energy and Energy-Efficiency Systems	Wind	Property	Financing	Owner	20	Varies	10% of value	-
27.04	Minnesota	§216B.241	Renewable Energy and Energy-Efficiency Systems	Geothermal	Property	Financing	Owner	20	Varies	10% of value	-
27.04	Minnesota	§216B.241	Renewable Energy and Energy-Efficiency Systems	Energy Efficiency	Property	Financing	Owner	20	Varies	10% of value	-
27.05	Minnesota	§297A.67	Green Facilities	Cogeneration	Sales	Exemption	Purchaser	-	100%	-	-
27.05	Minnesota	§297A.67	Green Facilities	Biomass	Sales	Exemption	Purchaser	-	100%	-	-
28.00 Mississippi State Tax Incentives for Renewable Energy and Energy Efficiency											
28.01	Mississippi	§57-7-22.29	Alternative Energy Job Creation	Various	Income	Credit	Employer	20	\$1,000/emp	100% liab	-
28.02	Mississippi	§57-75-5	Solar Panel Manufacturers	Solar	Sales	Exemption	Manufacturer	-	100%	-	-
28.03	Mississippi	§57-75-5	Solar Panel Manufacturers	Solar	Franchise	Exemption	Manufacturer	-	100%	-	-

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
28.04	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Wind	Income	Exemption	Manufacturer	10	100%	-	-
28.04	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Biomass	Income	Exemption	Manufacturer	10	100%	-	-
28.04	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Solar	Income	Exemption	Manufacturer	10	100%	-	-
28.04	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Various	Income	Exemption	Manufacturer	10	100%	-	-
28.05	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Wind	Franchise	Exemption	Manufacturer	10	100%	-	-
28.05	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Biomass	Franchise	Exemption	Manufacturer	10	100%	-	-
28.05	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Solar	Franchise	Exemption	Manufacturer	10	100%	-	-
28.05	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Various	Franchise	Exemption	Manufacturer	10	100%	-	-
28.06	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Wind	Sales	Exemption	Manufacturer	10	100%	-	-
28.06	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Biomass	Sales	Exemption	Manufacturer	10	100%	-	-
28.06	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Solar	Sales	Exemption	Manufacturer	10	100%	-	-
28.06	Mississippi	§57-113-1	Clean Energy Manufacturing Facilities	Various	Sales	Exemption	Manufacturer	10	100%	-	-
28.07	Mississippi	§27-7-22.35	Biomass Fuel Production Facilities	Biomass	Income	Credit	Investor	-	5%	-	-
28.08	Mississippi	§27-7-22.35	Biomass Fuel Production Facilities	Biomass	Sales	Exemption	Investor	-	100%	-	-
28.09	Mississippi	S.B. 2895	Renewable Energy Projects	Wind	Property	Exemption	Owner	-	50%	-	2027
28.09	Mississippi	S.B. 2895	Renewable Energy Projects	Hydro	Property	Exemption	Owner	-	50%	-	2027
28.09	Mississippi	S.B. 2895	Renewable Energy Projects	Biomass	Property	Exemption	Owner	-	50%	-	2027
28.09	Mississippi	S.B. 2895	Renewable Energy Projects	Solar	Property	Exemption	Owner	-	50%	-	2027
29.00	Missouri State Tax Incentives for Renewable Energy and Energy Efficiency										
29.01	Missouri	§620.1875	Technology Business Projects	Biomass	Income	Credit	Producer	5	5%	-	-
29.01	Missouri	§620.1875	Technology Business Projects	Solar	Income	Credit	Producer	5	5%	-	-
29.01	Missouri	§620.1875	Technology Business Projects	Wind	Income	Credit	Producer	5	5%	-	-
29.01	Missouri	§620.1875	Technology Business Projects	Geothermal	Income	Credit	Producer	5	5%	-	-
29.01	Missouri	§620.1875	Technology Business Projects	Hydroelectric	Income	Credit	Producer	5	5%	-	-
29.01	Missouri	§620.1875	Technology Business Projects	Various	Income	Credit	Producer	5	5%	-	-
29.02	Missouri	§135.710	Alternative Fuel Vehicle Refueling Property	Alternative Fuel	Income	Credit	Owner	-	20%	\$1,500 / \$20,000	2017
29.02	Missouri	§135.710	Alternative Fuel Vehicle Refueling Property	Electric Vehicle	Income	Credit	Owner	-	20%	\$1,500 / \$20,000	2017
29.03	Missouri	§144.526	Energy-Efficient Appliances	Energy Efficiency	Sales	Exemption	Purchaser	Annual	100%	-	-
29.04	Missouri	§143.121(8)	Residential Energy Efficiency Improvements	Energy Efficiency	Income	Deduction	Owner	-	100%	\$1,000 - \$2,000	2020
29.05	Missouri	§135.300	Wood Fuel Production	Biofuel	Income	Credit	Producer	-	\$5.00/ton	-	2020
29.06	Missouri	§144.526	Wind and Solar Manufacturing Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-
29.06	Missouri	§144.526	Wind and Solar Manufacturing Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	-
29.07	Missouri	§135.200	Renewable Energy Generation Zone	Biomass	Income	Credit	Employer	10	2%, \$1,200/job	-	-
29.07	Missouri	§135.200	Renewable Energy Generation Zone	Solar	Income	Credit	Employer	10	2%, \$1,200/job	-	-
29.07	Missouri	§135.200	Renewable Energy Generation Zone	Wind	Income	Credit	Employer	10	2%, \$1,200/job	-	-
29.07	Missouri	§135.200	Renewable Energy Generation Zone	Geothermal	Income	Credit	Employer	10	2%, \$1,200/job	-	-
29.07	Missouri	§135.200	Renewable Energy Generation Zone	Hydroelectric	Income	Credit	Employer	10	2%, \$1,200/job	-	-
29.07	Missouri	§135.200	Renewable Energy Generation Zone	Various	Income	Credit	Employer	10	2%, \$1,200/job	-	-
29.08	Missouri	§137.100(10)	Solar Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
29.09	Missouri	§135.963	Renewable Energy Generation Zone Property	Biomass	Property	Exemption	Owner	25	Varies	-	-
29.09	Missouri	§135.963	Renewable Energy Generation Zone Property	Solar	Property	Exemption	Owner	25	Varies	-	-
29.09	Missouri	§135.963	Renewable Energy Generation Zone Property	Wind	Property	Exemption	Owner	25	Varies	-	-
29.09	Missouri	§135.963	Renewable Energy Generation Zone Property	Geothermal	Property	Exemption	Owner	25	Varies	-	-
29.09	Missouri	§135.963	Renewable Energy Generation Zone Property	Hydroelectric	Property	Exemption	Owner	25	Varies	-	-
29.09	Missouri	§135.963	Renewable Energy Generation Zone Property	Various	Property	Exemption	Owner	25	Varies	-	-
29.10	Missouri	§ 144.030(2)	Solar Photovoltaic Energy Systems	Solar	Sales	Exemption	Purchaser	-	100%	-	-
29.10	Missouri	§135.778	Ethanol Blend and Biodiesel Fuel	Alternative Fuel	Income	Credit	Owner	-	\$0.02/gal	-	2020
30.00	Montana State Tax Incentives for Renewable Energy and Energy Efficiency										
30.01	Montana	§15-32-401	Net Metering Energy Production	Solar electric	Income	Credit	Producer	-	35%	-	2021
30.01	Montana	§15-32-401	Net Metering Energy Production	Wind	Income	Credit	Producer	-	35%	-	2021
30.01	Montana	§15-32-401	Net Metering Energy Production	Hydroelectric	Income	Credit	Producer	-	35%	-	2021
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Solar	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Wind	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Geothermal	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Biomass	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Fuel cell	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Cogeneration	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.02	Montana	§15-24-3111	Renewable Energy Production And Manufacturing Facilities	Various	Property	Abatement	Owner	19	50%	\$1 million of value	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Solar	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Wind	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Geothermal	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Biomass	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Fuel cell	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Hydroelectric	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Methane	Income	Credit	Employer	3	1%	-	-
30.03	Montana	§15-31-124	Alternative Renewable Energy Industries	Various	Income	Credit	Employer	3	1%	-	-
30.04	Montana	§15-32-109	Energy Conservation Investments In A Building	Energy Efficiency	Income	Credit	Owner	-	25%	\$500	2021
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Solar	Property	Assessment	Owner	10	50%	-	-
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Wind	Property	Assessment	Owner	10	50%	-	-
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Geothermal	Property	Assessment	Owner	10	50%	-	-

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Biomass	Property	Assessment	Owner	10	50%	-	-
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Fuel cell	Property	Assessment	Owner	10	50%	-	-
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Hydroelectric	Property	Assessment	Owner	10	50%	-	-
30.05	Montana	§15-24-1402	Alternative Renewable Energy Generating Facilities	Methane	Property	Assessment	Owner	10	50%	-	-
30.06	Montana	§15-6-225	Alternative Renewable Energy Generating Facilities	Various	Property	Exemption	Owner	-	100%	-	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Solar	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Wind	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Geothermal	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Biomass	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Fuel cell	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Hydroelectric	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Methane	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.07	Montana	§15-6-224	Renewable Energy Systems	Various	Property	Exemption	Owner	10	100%	\$100,000 / \$20,000	-
30.08	Montana	§15-32-703	Biodiesel Blending And Storage Property	Biodiesel	Income	Credit	Owner	-	15%	\$52,500 / \$7,500	2021
30.09	Montana	§15-30-164	Alternative Fuel Motor Vehicle Conversion	Alternative Fuel	Income	Credit	Owner	-	50%	\$500-\$1,000	2021
30.09	Montana	§15-30-164	Alternative Fuel Motor Vehicle Conversion	Electric Vehicle	Income	Credit	Owner	-	50%	\$500-\$1,000	2021
30.10	Montana	§15-32-103	Energy Conservation Capital Investments	Energy Efficiency	Income	Deduction	Owner	-	100%	\$3,600 / \$1,800	-
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Solar	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Wind	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Methane	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Geothermal	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Fuel cell	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Biomass	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Hydroelectric	Income	Credit	Owner	-	100%	\$500	2021
30.11	Montana	§15-32-201	Residential Non-Fossil Form Energy Systems	Various	Income	Credit	Owner	-	100%	\$500	2021
30.12	Montana	§15-32-115	Residential Geothermal Heating Or Cooling System	Geothermal	Income	Credit	Owner	-	100%	\$1,500	2021
30.13	Montana	§15-6-220	Ethanol Production Facilities	Ethanol	Property	Exemption	Owner	-	100%	-	-
31.00 Nebraska State Tax Incentives for Renewable Energy and Energy Efficiency											
31.01	Nebraska	§77-27.235	Zero-Emission Facilities	Wind	Income	Credit	Producer	10	\$0.0005/kwh	-	2017
31.01	Nebraska	§77-27.235	Zero-Emission Facilities	Hydroelectric	Income	Credit	Producer	10	\$0.0005/kwh	-	2017
31.01	Nebraska	§77-27.235	Zero-Emission Facilities	Solar	Income	Credit	Producer	10	\$0.0005/kwh	-	2017
31.01	Nebraska	§77-27.235	Zero-Emission Facilities	Geothermal	Income	Credit	Producer	10	\$0.0005/kwh	-	2017
31.01	Nebraska	§77-27.235	Zero-Emission Facilities	Fuel cell	Income	Credit	Producer	10	\$0.0005/kwh	-	2017
31.01	Nebraska	§77-27.235	Zero-Emission Facilities	Methane	Income	Credit	Producer	10	\$0.0005/kwh	-	2017
31.02	Nebraska	§70-1903	Community-Based Energy Generation Projects	Wind	Sales	Exemption	Purchaser	-	100%	-	-
31.02	Nebraska	§70-1903	Community-Based Energy Generation Projects	Solar	Sales	Exemption	Purchaser	-	100%	-	-
31.02	Nebraska	§70-1903	Community-Based Energy Generation Projects	Biomass	Sales	Exemption	Purchaser	-	100%	-	-
31.02	Nebraska	§70-1903	Community-Based Energy Generation Projects	Methane	Sales	Exemption	Purchaser	-	100%	-	-
31.03	Nebraska	§77-2704.13	Biofuel for Generating Electricity	Biofuel	Sales	Exemption	Purchaser	-	100%	-	-
31.04	Nebraska	§77-202(9)	Renewable Energy Equipment	Wind	Property	Exemption	Owner	-	100%	-	-
31.04	Nebraska	§77-202(9)	Renewable Energy Equipment	Solar	Property	Exemption	Owner	-	100%	-	-
31.04	Nebraska	§77-202(9)	Renewable Energy Equipment	Biomass	Property	Exemption	Owner	-	100%	-	-
31.04	Nebraska	§77-202(9)	Renewable Energy Equipment	Methane	Property	Exemption	Owner	-	100%	-	-
31.05	Nebraska	§77-5715.3	Renewable Energy Production	Wind	Sales	Exemption	Producer	-	100%	-	-
31.05	Nebraska	§77-5715.3	Renewable Energy Production	Hydroelectric	Sales	Exemption	Producer	-	100%	-	-
31.05	Nebraska	§77-5715.3	Renewable Energy Production	Solar	Sales	Exemption	Producer	-	100%	-	-
31.05	Nebraska	§77-5715.3	Renewable Energy Production	Geothermal	Sales	Exemption	Producer	-	100%	-	-
31.05	Nebraska	§77-5715.3	Renewable Energy Production	Fuel cell	Sales	Exemption	Producer	-	100%	-	-
31.05	Nebraska	§77-5715.3	Renewable Energy Production	Methane	Sales	Exemption	Producer	-	100%	-	-
31.06	Nebraska	§77-5715.3	Renewable Energy Production	Wind	Property	Exemption	Producer	-	100%	-	-
31.06	Nebraska	§77-5715.3	Renewable Energy Production	Hydroelectric	Property	Exemption	Producer	-	100%	-	-
31.06	Nebraska	§77-5715.3	Renewable Energy Production	Solar	Property	Exemption	Producer	-	100%	-	-
31.06	Nebraska	§77-5715.3	Renewable Energy Production	Geothermal	Property	Exemption	Producer	-	100%	-	-
31.06	Nebraska	§77-5715.3	Renewable Energy Production	Fuel cell	Property	Exemption	Producer	-	100%	-	-
31.06	Nebraska	§77-5715.3	Renewable Energy Production	Methane	Property	Exemption	Producer	-	100%	-	-
31.07	Nebraska	§77-5715.3	Renewable Energy Production	Wind	Income	Credit	Investor	-	3-15%	-	-
31.07	Nebraska	§77-5715.3	Renewable Energy Production	Hydroelectric	Income	Credit	Investor	-	3-15%	-	-
31.07	Nebraska	§77-5715.3	Renewable Energy Production	Solar	Income	Credit	Investor	-	3-15%	-	-
31.07	Nebraska	§77-5715.3	Renewable Energy Production	Geothermal	Income	Credit	Investor	-	3-15%	-	-
31.07	Nebraska	§77-5715.3	Renewable Energy Production	Fuel cell	Income	Credit	Investor	-	3-15%	-	-
31.07	Nebraska	§77-5715.3	Renewable Energy Production	Methane	Income	Credit	Investor	-	3-15%	-	-
31.08	Nebraska	§77-5715.3	Renewable Energy Production	Wind	Income	Credit	Employer	-	3-6%	-	-
31.08	Nebraska	§77-5715.3	Renewable Energy Production	Hydroelectric	Income	Credit	Employer	-	3-6%	-	-
31.08	Nebraska	§77-5715.3	Renewable Energy Production	Solar	Income	Credit	Employer	-	3-6%	-	-
31.08	Nebraska	§77-5715.3	Renewable Energy Production	Geothermal	Income	Credit	Employer	-	3-6%	-	-
31.08	Nebraska	§77-5715.3	Renewable Energy Production	Fuel cell	Income	Credit	Employer	-	3-6%	-	-
31.08	Nebraska	§77-5715.3	Renewable Energy Production	Methane	Income	Credit	Employer	-	3-6%	-	-
31.09	Nebraska	§77-6306(1)	High-Technology Fields	Solar	Income	Credit	Investor	-	35-40%	\$300,000	-
31.09	Nebraska	§77-6306(1)	High-Technology Fields	Wind	Income	Credit	Investor	-	35-40%	\$300,000	-
31.09	Nebraska	§77-6306(1)	High-Technology Fields	Geothermal	Income	Credit	Investor	-	35-40%	\$300,000	-

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
31.09	Nebraska	§77-6306(1)	High-Technology Fields	Alternative Fuel	Income	Credit	Investor	35-40%		\$300,000	-
31.09	Nebraska	§77-6306(1)	High-Technology Fields	Energy Efficiency	Income	Credit	Investor	35-40%		\$300,000	-
31.09	Nebraska	§77-6306(1)	High-Technology Fields	Various	Income	Credit	Investor	35-40%		\$300,000	-
32.00 Nevada State Tax Incentives for Renewable Energy and Energy Efficiency											
32.01	Nevada	§701A.360	Renewable Energy Technologies	Solar	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Wind	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Biomass	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Fuel cell	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Geothermal	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Hydroelectric	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Storage	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.01	Nevada	§701A.360	Renewable Energy Technologies	Various	Sales	Abatement	Purchaser	3	100%	0.25%	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Solar	Property	Abatement	Owner	20	55%	-	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Wind	Property	Abatement	Owner	20	55%	-	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Biomass	Property	Abatement	Owner	20	55%	-	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Fuel cell	Property	Abatement	Owner	20	55%	-	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Geothermal	Property	Abatement	Owner	20	55%	-	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Hydroelectric	Property	Abatement	Owner	20	55%	-	2049
32.02	Nevada	§701A.220	Renewable Energy Production Facilities	Various	Property	Abatement	Owner	20	55%	-	2049
32.03	Nevada	§701A.200	Renewable Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
32.03	Nevada	§701A.200	Renewable Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
32.03	Nevada	§701A.200	Renewable Energy Systems	Geothermal	Property	Exemption	Owner	-	100%	-	-
32.03	Nevada	§701A.200	Renewable Energy Systems	Methane	Property	Exemption	Owner	-	100%	-	-
32.03	Nevada	§701A.200	Renewable Energy Systems	Hydroelectric	Property	Exemption	Owner	-	100%	-	-
32.03	Nevada	§701A.200	Renewable Energy Systems	Various	Property	Exemption	Owner	-	100%	-	-
32.04	Nevada	§271.010	Renewable Energy And Energy Efficient Technologies	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
32.04	Nevada	§271.010	Renewable Energy And Energy Efficient Technologies	Various	Property	Financing	Owner	-	Varies	-	-
32.05	Nevada	§701A.110	LEED Certified Energy Efficient Green Buildings	Energy Efficiency	Property	Abatement	Owner	10	25-35%	-	2021
33.00 New Hampshire State Tax Incentives for Renewable Energy and Energy Efficiency											
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Wind	Property	Abatement	Owner	5	Varies	-	-
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Geothermal	Property	Abatement	Owner	5	Varies	-	-
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Biomass	Property	Abatement	Owner	5	Varies	-	-
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Methane	Property	Abatement	Owner	5	Varies	-	-
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Marine	Property	Abatement	Owner	5	Varies	-	-
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Solar Thermal	Property	Abatement	Owner	5	Varies	-	-
33.01	New Hampshire	72 §73	Renewable Generation Facilities	Various	Property	Abatement	Owner	5	Varies	-	-
33.02	New Hampshire	72 §61	Renewable-Energy Systems and Electric Storage Systems	Solar	Property	Exemption	Owner	-	-	-	-
33.02	New Hampshire	72 §61	Renewable-Energy Systems and Electric Storage Systems	Wind	Property	Exemption	Owner	-	-	-	-
33.02	New Hampshire	72 §61	Renewable-Energy Systems and Electric Storage Systems	Biofuel	Property	Exemption	Owner	-	-	-	-
33.02	New Hampshire	72 §84	Renewable-Energy Systems and Electric Storage Systems	Storage	Property	Exemption	Owner	-	-	-	-
34.00 New Jersey State Tax Incentives for Renewable Energy and Energy Efficiency											
34.01	New Jersey	§54:10A	Alternative Energy Technology Company	Various	Income	Credit	Investor	3	30%	\$500,000	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Solar electric	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Fuel cell	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Biomass	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Geothermal	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Methane	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Hydroelectric	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Cogeneration	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Marine	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Solar Thermal	Property	Exemption	Owner	-	100%	-	-
34.02	New Jersey	§54:4-3.113	Renewable Energy Systems	Various	Property	Exemption	Owner	-	100%	-	-
34.03	New Jersey	§54:32B-8.3	Solar Energy Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-
34.04	New Jersey	§54:32B	Cogeneration Facility Equipment	Cogeneration	Sales	Exemption	Purchaser	-	100%	-	-
34.05	New Jersey	§54:32B-8.55	Zero Emissions Vehicles	Electric Vehicle	Sales	Exemption	Purchaser	-	100%	-	-
34.06	New Jersey	§54:209.4	Wind Energy Facilities	Wind	Income	Credit	Investor	5	100%	-	2024
35.00 New Mexico State Tax Incentives for Renewable Energy and Energy Efficiency											
35.01	New Mexico	§7-2A-19	Renewable Energy Production	Solar	Income	Credit	Producer	10	\$0.027/kWh	200,000 MWh	2017
35.01	New Mexico	§7-2A-19	Renewable Energy Production	Wind	Income	Credit	Producer	10	\$0.010/kWh	400,000 MWh	2017
35.01	New Mexico	§7-2A-19	Renewable Energy Production	Biomass	Income	Credit	Producer	10	\$0.010/kWh	400,000 MWh	2017
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Solar electric	Income	Credit	Manufacturer	-	5%	-	-
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Solar Thermal	Income	Credit	Manufacturer	-	5%	-	-
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Biomass	Income	Credit	Manufacturer	-	5%	-	-
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Wind	Income	Credit	Manufacturer	-	5%	-	-
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Fuel cell	Income	Credit	Manufacturer	-	5%	-	-
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Electric Vehicle	Income	Credit	Manufacturer	-	5%	-	-
35.02	New Mexico	§7-9J-1	Alternative Energy Product Manufacturing	Various	Income	Credit	Manufacturer	-	5%	-	-
35.03	New Mexico	§5-18-1	Renewable-Energy Technologies	Solar electric	Property	Financing	Owner	-	Varies	40%	-
35.03	New Mexico	§5-18-1	Renewable-Energy Technologies	Solar Thermal	Property	Financing	Owner	-	Varies	40%	-

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
35.03	New Mexico	§5-18-1	Renewable-Energy Technologies	Geothermal	Property	Financing	Owner	-	Varies	40%	-
35.03	New Mexico	§5-18-1	Renewable-Energy Technologies	Wind	Property	Financing	Owner	-	Varies	40%	-
35.04	New Mexico	§7-9-112	Sales and Installation of Advanced Energy Systems	Solar	Income	Deduction	Seller	10	100%	\$60 million	2017
35.04	New Mexico	§7-9-112	Sales and Installation of Advanced Energy Systems	Geothermal	Income	Deduction	Seller	10	100%	\$60 million	2017
35.05	New Mexico	§7-2-18.14	Solar Thermal Energy Or Photovoltaic Systems	Solar	Income	Credit	Owner	-	10%	\$9,000	2016
35.06	New Mexico	§7-9-54.3	Wind Energy Generation Equipment	Wind	Income	Deduction	Seller	-	100%	-	-
35.07	New Mexico	§7-2A-24	Geothermal Systems	Geothermal	Income	Credit	Owner	-	30%	\$9,000	2020
35.08	New Mexico	§7-9-98	Biomass Equipment and Materials	Biomass	Sales	Deduction	Purchaser	-	100%	-	-
35.09	New Mexico	§7-9-79.2	Biodiesel Blending Facilities	Biodiesel	Income	Credit	Producer	-	30%	\$50,000	-
35.10	New Mexico	§7-2A-21	Sustainable Buildings	Energy Efficiency	Income	Credit	Owner	-	\$0.30-6.50/SF	\$5,000,000	2029
35.11	New Mexico	§7-2A-26	Agricultural Biomass Fuel	Biomass	Income	Credit	Producer	10	\$5/ton	-	2029
35.12	New Mexico	S.B. 29 (2020)	New Solar Market Development	Solar	Income	Credit	Owner	10	10%	\$6,000	2027
36.00 New York State Tax Incentives for Renewable Energy and Energy Efficiency											
36.01	New York	§499-aaaa	Photovoltaic Equipment Expenditures Installed In New York City	Solar electric	Property	Abatement	Owner	4	5%	\$62,500	2021
36.01	New York	§499-aaaa	Electric Energy Storage Equipment Installed In New York City	Storage	Property	Abatement	Owner	4	10%	\$62,500	2021
36.02	New York	4 §487	Solar, Wind & Biomass Energy Systems	Solar	Property	Exemption	Owner	15	100%	-	2025
36.02	New York	4 §487	Solar, Wind & Biomass Energy Systems	Wind	Property	Exemption	Owner	15	100%	-	2025
36.02	New York	4 §487	Solar, Wind & Biomass Energy Systems	Energy Efficiency	Property	Exemption	Owner	15	100%	-	2025
36.02	New York	4 §487	Solar, Wind & Biomass Energy Systems	Various	Property	Exemption	Owner	15	100%	-	2025
36.03	New York	§210(24)	Alternative Fuel Vehicle and Electric Vehicle Refueling Property	Alternative Fuel	Income	Credit	Owner	-	50%	\$5,000	2017
36.03	New York	§210(24)	Alternative Fuel Vehicle and Electric Vehicle Refueling Property	Electric Vehicle	Income	Credit	Owner	-	50%	5000	2017
36.04	New York	§487-a	Energy Conservation Improvements	Energy Efficiency	Property	Exemption	Owner	-	100%	-	-
36.05	New York	22 §210.39	Clean Heating Fuel Purchase	Biodiesel	Income	Credit	Purchaser	-	\$0.01/gal/%	\$0.20/gal	2016
36.06	New York	22 §210.37	Solar And Fuel Cell System Equipment	Solar	Income	Credit	Owner	-	25%	\$5,000	-
36.06	New York	22 §210.37	Solar And Fuel Cell System Equipment	Fuel cell	Income	Credit	Owner	-	20%	\$1,500	-
36.07	New York	28 §1115 (ee)	Residential and Commercial Solar-Energy Systems Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-
36.08	New York	28 §1115 (a)(1)	Wind Farm Components	Wind	Sales	Exemption	Purchaser	-	100%	-	-
36.09	New York	22 §210.37	Fuel Cell Electric Generating Equipment	Fuel cell	Income	Credit	Purchaser	-	100%	\$1,500	-
36.10	New York	§470	Green Building Property Tax Exemption	Energy Efficiency	Property	Exemption	Owner	10	0-100%	-	-
36.11	New York	§1115(42)	Alternative Fuel Sales	Alternative Fuel	Sales	Exemption	Purchaser	-	20-100%	-	2016
36.12	New York	§499-aaa	Green Roofs	Energy Efficiency	Property	Abatement	Owner	-	\$5.23/sf	-	2019
36.13	New York	28 §1115 (kk)	Fuel Cell Electricity Generating Equipment	Fuel cell	Sales	Exemption	Purchaser	-	100%	-	-
37.00 North Carolina State Tax Incentives for Renewable Energy and Energy Efficiency											
37.01	North Carolina	§105-275(45)	Solar Energy Electric System	Solar electric	Property	Assessment	Owner	-	80%	-	-
37.02	North Carolina	§105-277(g)	Active Solar Heating And Cooling Systems	Solar Thermal	Property	Abatement	Owner	-	100%	-	-
37.03	North Carolina	§105-164.13(11)	Alternative Fuels	Alternative Fuel	Sales	Exemption	Purchaser	-	100%	-	-
37.04	North Carolina	§105-130.25	Cogeneration Power Plants	Cogeneration	Income	Credit	Producer	-	10%	-	-
38.00 North Dakota State Tax Incentives for Renewable Energy and Energy Efficiency											
38.01	North Dakota	§57-02-08(27)	Geothermal, Solar And Wind Property	Geothermal	Property	Abatement	Owner	5	100%	-	-
38.01	North Dakota	§57-02-08(27)	Geothermal, Solar And Wind Property	Solar	Property	Abatement	Owner	5	100%	-	-
38.01	North Dakota	§57-02-08(27)	Geothermal, Solar And Wind Property	Wind	Property	Abatement	Owner	5	100%	-	-
38.02	North Dakota	§57-38-01.8(7)	Biodiesel Production	Biodiesel	Income	Credit	Producer	5	50%	\$250,000	-
38.03	North Dakota	§57-38-01.23	Biodiesel Sales Equipment Costs	Biodiesel	Income	Credit	Seller	5	50%	\$50,000	-
38.04	North Dakota	§57-38-01.22	Biodiesel Blending	Biodiesel	Income	Credit	Producer	-	\$0.05/gal	-	-
38.05	North Dakota	§57-39.2-04(51)	Biodiesel Production Equipment	Biodiesel	Sales	Exemption	Producer	-	100%	-	-
38.06	North Dakota	§57-39.2-04(50)	Fuel Cell Hydrogen Fuel and Equipment	Fuel cell	Sales	Exemption	Purchaser	-	100%	-	-
39.00 Ohio State Tax Incentives for Renewable Energy and Energy Efficiency											
39.01	Ohio	§1710.01	Special Energy Improvement Districts	Solar	Property	Financing	Owner	-	Varies	-	-
39.02	Ohio	§5709.53	Solar, Wind, And Hydrothermal Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
39.02	Ohio	§5709.53	Solar, Wind, And Hydrothermal Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
39.02	Ohio	§5709.53	Solar, Wind, And Hydrothermal Energy Systems	Geothermal	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Solar Thermal	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Solar electric	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Wind	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Biomass	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Methane	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Cogeneration	Property	Exemption	Owner	-	100%	-	-
39.03	Ohio	§3706	Energy Conversion And Thermal Efficiency Improvements	Various	Property	Exemption	Owner	-	100%	-	-
40.00 Oklahoma State Tax Incentives for Renewable Energy and Energy Efficiency											
40.01	Oklahoma	68 §2357.32A	Zero-Emission Electricity Production	Wind	Income	Credit	Producer	10	\$0.0050/kWh	-	2017
40.01	Oklahoma	68 §2357.32A	Zero-Emission Electricity Production	Solar electric	Income	Credit	Producer	10	\$0.0050/kWh	-	2021
40.01	Oklahoma	68 §2357.32A	Zero-Emission Electricity Production	Hydroelectric	Income	Credit	Producer	10	\$0.0050/kWh	-	2021
40.01	Oklahoma	68 §2357.32A	Zero-Emission Electricity Production	Geothermal	Income	Credit	Producer	10	\$0.0050/kWh	-	2021
40.02	Oklahoma	19 §460.1	Renewable And Efficiency Systems Improvement Districts	Various	Property	Financing	Owner	-	Varies	-	-
40.03	Oklahoma	68 §2357.46	Energy Efficient Home Builders	Energy Efficiency	Income	Credit	Builder	-	100%	\$2,000-\$4,000	2016
40.04	Oklahoma	68 §2357.22	Electric And Clean-Burning Motor Vehicle Fuel Property	Electric Vehicle	Income	Credit	Owner	-	45%	\$5,500 - \$100,000	2028
40.04	Oklahoma	68 §2357.22	Electric And Clean-Burning Motor Vehicle Fuel Property	Alternative Fuel	Income	Credit	Owner	-	45%	\$5,500 - \$100,000	2028
40.04	Oklahoma	68 §2357.22	Electric And Clean-Burning Motor Vehicle Fuel Property	Fuel cell	Income	Credit	Owner	-	45%	\$5,500 - \$100,000	2028
40.05	Oklahoma	68 §6501	Electric Vehicle Charging Taxes	Electric Vehicle	Sales	Credit	Owner	-	100%	-	2027
41.00 Oregon State Tax Incentives for Renewable Energy and Energy Efficiency											

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
41.01	Oregon	\$315.331	Energy Improvements	Energy Efficiency	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Cogeneration	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Alternative Fuel	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Solar	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Wind	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Hydroelectric	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Geothermal	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Biomass	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Fuel cell	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements	Various	Income	Credit	Owner	5	35-50%	\$20 million	2017	
41.01	Oregon	\$315.331	Energy Improvements (Homebuilding)	Energy Efficiency	Income	Credit	Builder	5	35%	\$9,000-\$12,000/home	2017	
41.02	Oregon	\$307.175	Alternative Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	2023	
41.02	Oregon	\$307.175	Alternative Energy Systems	Geothermal	Property	Exemption	Owner	-	100%	-	2023	
41.02	Oregon	\$307.175	Alternative Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	2023	
41.02	Oregon	\$307.175	Alternative Energy Systems	Hydroelectric	Property	Exemption	Owner	-	100%	-	2023	
41.02	Oregon	\$307.175	Alternative Energy Systems	Fuel cell	Property	Exemption	Owner	-	100%	-	2023	
41.02	Oregon	\$307.175	Alternative Energy Systems	Methane	Property	Exemption	Owner	-	100%	-	2023	
41.03	Oregon	\$285C.350	Renewable-Energy And Energy-Efficiency Improvement Districts	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-	
41.03	Oregon	\$285C.350	Renewable-Energy And Energy-Efficiency Improvement Districts	Various	Property	Financing	Owner	-	Varies	-	-	
41.04	Oregon	\$315.144(1)	Biofuel Raw Materials	Biofuel	Income	Credit	Producer	-	Varies	-	2021	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Solar electric	Income	Credit	Owner	-	\$3.00/w	\$6,000	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Fuel cell	Income	Credit	Owner	-	\$3.00/w	\$6,000	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Biomass	Income	Credit	Owner	-	25%	\$1,500	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Solar Thermal	Income	Credit	Owner	-	\$0.60/kwh	\$1,500	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Wind	Income	Credit	Owner	-	\$2.00/kwh	\$6,000	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Geothermal	Income	Credit	Owner	-	\$300-\$900	\$900	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Energy Efficiency	Income	Credit	Owner	-	\$0.40/kwh	25%	2017	
41.05	Oregon	\$469.185	Residential Renewable Energy Property	Alternative Fuel	Income	Credit	Owner	-	25%	\$750	2011	
41.06	Oregon	\$315.326	Renewable Energy Development Contributions	Various	Income	Credit	Contributor	-	100%	-	2017	
41.07	Oregon	\$315.354	Renewable Energy Conservation Projects	Energy Efficiency	Income	Credit	Owner	5	35%	\$10 million	2017	
41.08	Oregon	\$315.336	Alternative Fuel Vehicle Infrastructure	Alternative Fuel	Income	Credit	Owner	-	35%	-	2017	
41.08	Oregon	\$315.336	Alternative Fuel Vehicle Infrastructure	Electric Vehicle	Income	Credit	Owner	-	35%	-	2017	
41.09	Oregon	\$385C.350	Rural Renewable Energy Development	Solar	Property	Exemption	Owner	3	100%	-	-	
41.09	Oregon	\$385C.350	Rural Renewable Energy Development	Biomass	Property	Exemption	Owner	3	100%	-	-	
41.09	Oregon	\$385C.350	Rural Renewable Energy Development	Wind	Property	Exemption	Owner	3	100%	-	-	
41.09	Oregon	\$385C.350	Rural Renewable Energy Development	Geothermal	Property	Exemption	Owner	3	100%	-	-	
41.09	Oregon	\$385C.350	Rural Renewable Energy Development	Hydroelectric	Property	Exemption	Owner	3	100%	-	-	
41.09	Oregon	\$385C.350	Rural Renewable Energy Development	Marine	Property	Exemption	Owner	3	100%	-	-	
41.10	Oregon	\$315.176	Bovine manure production or collection for biofuel	Biofuel	Income	Credit	Producer	-	\$3.50/wet ton	-	2021	
42.00	Pennsylvania State Tax Incentives for Renewable Energy and Energy Efficiency											
42.01	Pennsylvania	72 \$5453.201	Commercial Wind Farms	Wind	Property	Exemption	Owner	-	100%	-	-	
44.00	Rhode Island State Tax Incentives for Renewable Energy and Energy Efficiency											
44.01	Rhode Island	\$44-18-30(57)	Renewable Energy Systems And Equipment	Solar	Sales	Exemption	Purchaser	-	100%	-	-	
44.01	Rhode Island	\$44-18-30(57)	Renewable Energy Systems And Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	-	
44.01	Rhode Island	\$44-18-30(57)	Renewable Energy Systems And Equipment	Geothermal	Sales	Exemption	Purchaser	-	100%	-	-	
44.02	Rhode Island	\$44-3-21	Renewable-Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-	
44.02	Rhode Island	\$44-3-21	Renewable-Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-	
44.02	Rhode Island	\$44-3-21	Renewable-Energy Systems	Geothermal	Property	Exemption	Owner	-	100%	-	-	
44.03	Rhode Island	\$44-30-20	Hydroelectric Power Installation	Hydroelectric	Income	Credit	Owner	-	10%	\$50,000	-	
44.04	Rhode Island	\$44-57-1	Residential Renewable Energy Systems	Solar electric	Income	Credit	Owner	-	25%	\$15,000	-	
44.04	Rhode Island	\$44-57-1	Residential Renewable Energy Systems	Solar Thermal	Income	Credit	Owner	-	25%	\$7,000	-	
44.04	Rhode Island	\$44-57-1	Residential Renewable Energy Systems	Wind	Income	Credit	Owner	-	25%	\$15,000	-	
44.04	Rhode Island	\$44-57-1	Residential Renewable Energy Systems	Geothermal	Income	Credit	Owner	-	25%	\$7,000	-	
44.05	Rhode Island	\$44-57-4(a)(6)	Residential Solar Property	Solar	Property	Exemption	Owner	-	100%	-	-	
44.06	Rhode Island	\$44-3-3(a)(48) and (	Renewable Energy Resources	Various	Property	Exemption	Owner	-	100%	-	-
44.07	Rhode Island	\$44-27-10.1	Farmland Used for Renewable Energy Systems	Various	Property	Exemption	Owner	-	100%	-	-	
45.00	South Carolina State Tax Incentives for Renewable Energy and Energy Efficiency											
45.01	South Carolina	\$12-6-3587	Solar Energy, Geothermal Or Small Hydropower Systems	Solar	Income	Credit	Owner	5	25%	-	2024	
45.01	South Carolina	\$12-6-3587	Solar Energy, Geothermal Or Small Hydropower Systems	Storage	Income	Credit	Owner	-	25%	-	-	
45.01	South Carolina	\$12-6-3587	Solar Energy, Geothermal Or Small Hydropower Systems	Geothermal	Income	Credit	Owner	-	25%	-	2031	
45.01	South Carolina	\$12-6-3587	Solar Energy, Geothermal Or Small Hydropower Systems	Hydroelectric	Income	Credit	Owner	-	25%	-	-	
45.02	South Carolina	\$12-6-3620	Biomass Energy Systems	Biomass	Income	Credit	Owner	-	25%	\$650,000	-	
45.03	South Carolina	\$12-6-3600(A)(1)	Biodiesel Motor Fuel Production	Biodiesel	Income	Credit	Producer	5	\$0.075-\$0.30/gal	25 million gal	2016	
45.04	South Carolina	\$12-6-3376(A)	Plug-In Hybrid Vehicles	Electric Vehicle	Income	Credit	Purchaser	-	\$2,000	-	2016	
45.05	South Carolina	\$12-6-3610(A)	Renewable Fuel Distribution, Processing And Dispensing Property	Alternative Fuel	Income	Credit	Owner	3	25%	-	2019	
45.06	South Carolina	\$12-36-2120(71)	Hydrogen And Fuel Cell Equipment	Fuel cell	Sales	Exemption	Purchaser	-	100%	-	-	
45.07	South Carolina	\$48-52-870	Energy Efficient Manufactured Homes	Energy Efficiency	Income	Credit	Purchaser	-	\$750	-	2024	
45.08	South Carolina	\$12-36-2110	Energy Efficient Manufactured Homes	Energy Efficiency	Sales	Exemption	Purchaser	-	100%	-	2024	
45.09	South Carolina	\$12-6-3588	Plant And Equipment For Clean Energy Manufacturing Operations	Wind	Income	Credit	Owner	-	10%	\$500,000	2020	
45.09	South Carolina	\$12-6-3588	Plant And Equipment For Clean Energy Manufacturing Operations	Solar	Income	Credit	Owner	-	10%	\$500,000	2020	

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
45.09	South Carolina	§12-6-3588	Plant And Equipment For Clean Energy Manufacturing Operations	Geothermal	Income	Credit	Owner	-	10%	\$500,000	2020
45.09	South Carolina	§12-6-3588	Plant And Equipment For Clean Energy Manufacturing Operations	Various	Income	Credit	Owner	-	10%	\$500,000	2020
45.10	South Carolina	§12-6-3600	Alternative Motor Vehicles	Alternative Fuel	Income	Credit	Owner	-	20%	-	-
45.10	South Carolina	§12-6-3600	Alternative Motor Vehicles	Electric Vehicle	Income	Credit	Owner	-	20%	-	-
45.10	South Carolina	§12-6-3600	Alternative Motor Vehicles	Fuel cell	Income	Credit	Owner	-	20%	-	-
45.11	South Carolina	§12-6-3770	Solar Energy Property on Contaminated Sites	Solar	Income	Credit	Owner	5	25%	-	2017
45.12	South Carolina	§12-6-3695	Alternative Fuel Distribution, Storing And Dispensing Property	Alternative Fuel	Income	Credit	Owner	3	25%	-	2025
45.13	South Carolina	§12-37-220(B)(53)	Renewable Energy Resource Properties	Various	Property	Exemption	Owner	-	10%	-	-
46.00	South Dakota State Tax Incentives for Renewable Energy and Energy Efficiency										
46.01	South Dakota	§10-6-35.8	Renewable Energy Systems	Solar	Property	Assessment	Owner	6	50-100%	-	-
46.01	South Dakota	§10-6-35.8	Renewable Energy Systems	Wind	Property	Assessment	Owner	6	50-100%	-	-
46.01	South Dakota	§10-6-35.8	Renewable Energy Systems	Geothermal	Property	Assessment	Owner	6	50-100%	-	-
46.01	South Dakota	§10-6-35.8	Renewable Energy Systems	Biomass	Property	Assessment	Owner	6	50-100%	-	-
46.02	South Dakota	§10-35-16	Commercial Wind Energy Facilities	Wind	Property	Refund	Owner	10	50-90%	-	-
46.03	South Dakota	§10-4-34	Alternative Fuel Storage And Dispensing Property	Alternative Fuel	Property	Exemption	Owner	5	100%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Wind	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Solar	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Hydroelectric	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Fuel cell	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Biomass	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Methane	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Geothermal	Property	Exemption	Owner	-	70%	-	-
46.04	South Dakota	§10-4-44	Small Renewable Energy Facilities	Various	Property	Exemption	Owner	-	70%	-	-
47.00	Tennessee State Tax Incentives for Renewable Energy and Energy Efficiency										
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Biomass	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Geothermal	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Fuel cell	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Hydroelectric	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Methane	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Solar	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Wind	Sales	Credit	Manufacturer	8	99.50%	-	-
47.01	Tennessee	§67-6-232	Manufacturers Of Clean Energy Technologies	Various	Sales	Credit	Manufacturer	8	100%	-	-
47.02	Tennessee	§67-5-601	Green Energy Production Facilities	Wind	Property	Exemption	Owner	-	67-87.5%	-	-
47.02	Tennessee	§67-5-601	Green Energy Production Facilities	Solar	Property	Exemption	Owner	-	67-87.5%	-	-
47.02	Tennessee	§67-5-601	Green Energy Production Facilities	Geothermal	Property	Exemption	Owner	-	67-87.5%	-	-
47.02	Tennessee	§67-5-601	Green Energy Production Facilities	Fuel cell	Property	Exemption	Owner	-	67-87.5%	-	-
47.03	Tennessee	§67-4-2108(a)(5)	Green Energy Production Facilities	Wind	Franchise	Exemption	Owner	-	100%	-	-
47.03	Tennessee	§67-4-2108(a)(5)	Green Energy Production Facilities	Solar	Franchise	Exemption	Owner	-	100%	-	-
47.03	Tennessee	§67-4-2108(a)(5)	Green Energy Production Facilities	Geothermal	Franchise	Exemption	Owner	-	100%	-	-
47.03	Tennessee	§67-4-2108(a)(5)	Green Energy Production Facilities	Fuel cell	Franchise	Exemption	Owner	-	100%	-	-
47.03	Tennessee	§67-4-2108(a)(5)	Green Energy Production Facilities	Storage	Franchise	Exemption	Owner	-	100%	-	-
48.00	Texas State Tax Incentives for Renewable Energy and Energy Efficiency										
48.01	Texas	§11.27	Renewable Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
48.01	Texas	§11.27	Renewable Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
48.01	Texas	§11.27	Renewable Energy Systems	Biomass	Property	Exemption	Owner	-	100%	-	-
48.02	Texas	§171.107	Solar And Wind Energy Devices	Solar	Income	Deduction	Owner	-	10%	-	-
48.02	Texas	§171.107	Solar And Wind Energy Devices	Wind	Income	Deduction	Owner	-	10%	-	-
48.03	Texas	§171.056	Solar And Wind Energy Businesses	Solar	Income	Exemption	Manufacturer	-	100%	-	-
48.03	Texas	§171.056	Solar And Wind Energy Businesses	Wind	Income	Exemption	Manufacturer	-	100%	-	-
48.04	Texas	§376	Distributed Generation Renewable Energy And Energy-Efficient Technologies	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
48.04	Texas	§376	Distributed Generation Renewable Energy And Energy-Efficient Technologies	Various	Property	Financing	Owner	-	Varies	-	-
48.05	Texas	§151.333	Energy-Efficient Energy Star Products	Energy Efficiency	Sales	Exemption	Purchaser	Annual	100%	-	-
49.00	Utah State Tax Incentives for Renewable Energy and Energy Efficiency										
49.01	Utah	§59-7-614	Renewable Energy Systems	Solar Thermal	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.01	Utah	§59-7-614	Renewable Energy Systems	Solar electric	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.01	Utah	§59-7-614	Renewable Energy Systems	Wind	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.01	Utah	§59-7-614	Renewable Energy Systems	Hydroelectric	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.01	Utah	§59-7-614	Renewable Energy Systems	Geothermal	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.01	Utah	§59-7-614	Renewable Energy Systems	Biomass	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.01	Utah	§59-7-614	Renewable Energy Systems	Various	Income	Credit	Owner	-	10-25%	\$50,000	2023
49.02	Utah	§59-7-614(2)(c)	Renewable Energy Systems	Wind	Income	Credit	Owner	4	\$0.0035/kWh	-	-
49.02	Utah	§59-7-614(2)(c)	Renewable Energy Systems	Geothermal	Income	Credit	Owner	4	\$0.0035/kWh	-	-
49.02	Utah	§59-7-614(2)(c)	Renewable Energy Systems	Biomass	Income	Credit	Owner	4	\$0.0035/kWh	-	-
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Wind	Sales	Exemption	Purchaser	-	100%	-	2019
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Solar Electric	Sales	Exemption	Purchaser	-	100%	-	2019
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Biomass	Sales	Exemption	Purchaser	-	100%	-	2019
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Methane	Sales	Exemption	Purchaser	-	100%	-	2019
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Hydroelectric	Sales	Exemption	Purchaser	-	100%	-	2019
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Geothermal	Sales	Exemption	Purchaser	-	100%	-	2019
49.03	Utah	§59-12-104(55)	Renewable Resource Electricity Generation Equipment	Various	Sales	Exemption	Purchaser	-	100%	-	2019

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
49.04	Utah	§59-7-614.3	Solar Units Purchased From Qualifying Local Political Subdivisions	Solar	Income	Credit	Purchaser	-	25%	\$2,000	2012
49.05	Utah	§59-7-605	Cleaner Burning Fuel Vehicles	Alternative Fuel	Income	Credit	Purchaser	-	35-50%	\$1,500/veh	2016
49.05	Utah	§59-7-605	Cleaner Burning Fuel Vehicles	Electric Vehicle	Income	Credit	Purchaser	-	35-50%	\$750-1,500/veh	2016
49.06	Utah	§10-1-304	Renewable Resource Electricity	Wind	Sales	Exemption	Purchaser	-	100%	-	2019
49.06	Utah	§10-1-304	Renewable Resource Electricity	Solar Electric	Sales	Exemption	Purchaser	-	100%	-	2019
49.06	Utah	§10-1-304	Renewable Resource Electricity	Biomass	Sales	Exemption	Purchaser	-	100%	-	2019
49.06	Utah	§10-1-304	Renewable Resource Electricity	Methane	Sales	Exemption	Purchaser	-	100%	-	2019
49.06	Utah	§10-1-304	Renewable Resource Electricity	Hydroelectric	Sales	Exemption	Purchaser	-	100%	-	2019
49.06	Utah	§10-1-304	Renewable Resource Electricity	Geothermal	Sales	Exemption	Purchaser	-	100%	-	2019
49.06	Utah	§10-1-304	Renewable Resource Electricity	Various	Sales	Exemption	Purchaser	-	100%	-	2019
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Wind	Income	Credit	Operator	20	75% of revenue	-	-
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Solar Electric	Income	Credit	Operator	20	75% of revenue	-	-
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Alternative Fuel	Income	Credit	Operator	20	75% of revenue	-	-
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Methane	Income	Credit	Operator	20	75% of revenue	-	-
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Hydroelectric	Income	Credit	Operator	20	75% of revenue	-	-
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Geothermal	Income	Credit	Operator	20	75% of revenue	-	-
49.07	Utah	§59-10-1029	Renewable Resource Electricity	Various	Income	Credit	Operator	20	75% of revenue	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Wind	Income	Credit	Manufacturer	20	Varies	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Solar Electric	Income	Credit	Manufacturer	20	Varies	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Alternative Fuel	Income	Credit	Manufacturer	20	Varies	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Methane	Income	Credit	Manufacturer	20	Varies	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Hydroelectric	Income	Credit	Manufacturer	20	Varies	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Geothermal	Income	Credit	Manufacturer	20	Varies	-	-
49.08	Utah	§63M-4-501	Alternative Energy Manufacturing	Various	Income	Credit	Manufacturer	20	Varies	-	-
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Wind	Sales	Exemption	Researcher	-	100%	-	2027
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Solar Electric	Sales	Exemption	Researcher	-	100%	-	2027
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Alternative Fuel	Sales	Exemption	Researcher	-	100%	-	2027
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Biomass	Sales	Exemption	Researcher	-	100%	-	2027
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Hydroelectric	Sales	Exemption	Researcher	-	100%	-	2027
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Geothermal	Sales	Exemption	Researcher	-	100%	-	2027
49.09	Utah	§59-12-104(62)(a)	Alternative Energy Research and Development	Various	Sales	Exemption	Researcher	-	100%	-	2027
50.00 Vermont State Tax Incentives for Renewable Energy and Energy Efficiency											
50.01	Vermont	32 §3845	Alternate Energy Source Systems	Wind	Property	Exemption	Owner	-	100%	-	-
50.01	Vermont	32 §3845	Alternate Energy Source Systems	Solar	Property	Exemption	Owner	-	100%	-	-
50.01	Vermont	32 §3845	Alternate Energy Source Systems	Methane	Property	Exemption	Owner	-	100%	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Solar Thermal	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Solar electric	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Methane	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Wind	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Biomass	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Hydroelectric	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Geothermal	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Fuel cell	Property	Financing	Owner	-	Varies	-	-
50.02	Vermont	24 §1751(3)	Clean Energy Assessment Districts	Various	Property	Financing	Owner	-	Varies	-	-
50.03	Vermont	32 §9741(46)	Renewable-Energy Systems	Cogeneration	Sales	Exemption	Purchaser	-	100%	-	-
50.03	Vermont	32 §9741(46)	Renewable-Energy Systems	Solar Thermal	Sales	Exemption	Purchaser	-	100%	-	-
50.03	Vermont	32 §9741(46)	Renewable-Energy Systems	Methane	Sales	Exemption	Purchaser	-	100%	-	-
50.03	Vermont	32 §9741(46)	Renewable-Energy Systems	Various	Sales	Exemption	Purchaser	-	100%	-	-
50.04	Vermont	32 §5822	Solar Energy Equipment On Business Properties	Solar	Income	Credit	Owner	-	30%	-	2016
51.00 Virginia State Tax Incentives for Renewable Energy and Energy Efficiency											
51.01	Virginia	§15.2-958.3	Clean Energy Assessment Districts	Energy Efficiency	Property	Financing	Owner	-	Varies	-	-
51.01	Virginia	§15.2-958.3	Clean Energy Assessment Districts	Various	Property	Financing	Owner	-	Varies	-	-
51.02	Virginia	§58.1-3660	Solar Energy Property	Solar	Property	Exemption	Owner	-	60-80%	-	2030
51.02	Virginia	§58.1-3660	Solar Energy Property	Storage	Property	Exemption	Owner	-	60-80%	-	2030
51.03	Virginia	§58.1-439.12:02.	Biodiesel And Green Diesel Production	Biodiesel	Income	Credit	Producer	3	\$0.01/gal	\$5,000	-
51.04	Virginia	§58.1-438.1	Clean-Fuel Vehicle And Refueling Property	Electric Vehicle	Income	Credit	Purchaser	-	10-20%	-	-
51.04	Virginia	§58.1-438.1	Clean-Fuel Vehicle And Refueling Property	Alternative Fuel	Income	Credit	Purchaser	-	10-20%	-	-
51.05	Virginia	§58.1-3221.2	Energy Efficient Buildings	Energy Efficiency	Property	Assessment	Owner	-	Varies	-	-
51.06	Virginia	§58.1-322(D)(12).	Sales And Use Tax Paid On Energy Conservation Personal Property	Energy Efficiency	Income	Deduction	Purchaser	-	20%	\$500	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Solar	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Wind	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Hydroelectric	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Biomass	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Cogeneration	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Methane	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Marine	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Geothermal	Property	Assessment	Manufacturer	-	Varies	-	-
51.07	Virginia	§58.1-3221.4	Renewable Energy Manufacturing	Various	Property	Assessment	Manufacturer	-	Varies	-	-
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Fuel cell	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Methane	Income	Credit	Employer	5	\$500/job	\$175,000	2020

Sec	Jurisdiction	Statute	Incentive Title	Technology	Tax	Type	Taxpayer	Period (	Amount	Maximum	Expiration
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Geothermal	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Solar	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Hydroelectric	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Wind	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Biomass	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Biofuel	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.08	Virginia	§58.1-439.12:05	Green and Alternative Energy Job Creation	Various	Income	Credit	Employer	5	\$500/job	\$175,000	2020
51.09	Virginia	§58.1-609.3	Solar and Wind Energy Equipment	Energy Efficiency	Sales	Exemption	Purchaser	Annual	100%	-	2027
51.10	Virginia	§58.1-3661	Solar Facility Exemption	Solar	Property	Exemption	Purchaser		100%		
51.11	Virginia	§58.1-609.1	Energy Star and WaterSense Qualified Products	Energy Efficiency	Sales	Exemption	Purchaser	Annual	100%		2022
53.00 Washington State Tax Incentives for Renewable Energy and Energy Efficiency											
53.01	Washington	§82.08.962	Renewable Energy Equipment	Fuel cell	Sales	Exemption	Purchaser	-	50-100%	-	2029
53.01	Washington	§82.08.962	Renewable Energy Equipment	Wind	Sales	Exemption	Purchaser	-	50-100%	-	2029
53.01	Washington	§82.08.962	Renewable Energy Equipment	Solar	Sales	Exemption	Purchaser	-	50-100%	-	Varies
53.01	Washington	§82.08.962	Renewable Energy Equipment	Marine	Sales	Exemption	Purchaser	-	50-100%	-	2029
53.01	Washington	§82.08.962	Renewable Energy Equipment	Geothermal	Sales	Exemption	Purchaser	-	50-100%	-	2029
53.01	Washington	§82.08.962	Renewable Energy Equipment	Various	Sales	Exemption	Purchaser	-	50-100%	-	2029
53.02	Washington	§82.04.294	Solar Equipment Manufacturers	Solar	Business	Abatement	Manufacturer	-	43%	-	2027
53.03	Washington	§82.08.998	Residential Energy Efficiency Property	Energy Efficiency	Sales	Exemption	Purchaser	-	100%	-	-
53.04	Washington	§82.08.809	Clean Fuel Vehicles	Electric Vehicle	Sales	Exemption	Purchaser	-	100%	-	2018
53.04	Washington	§82.08.809	Clean Fuel Vehicles	Alternative Fuel	Sales	Exemption	Purchaser	-	100%	-	2018
53.05	Washington	§82.16.110	Cost Recovery Incentive Payments for Electricity Renewable Energy System	Solar electric	Business	Credit	Payor	-	100%	\$250,000	2017
53.05	Washington	§82.16.110	Cost Recovery Incentive Payments for Electricity Renewable Energy System	Methane	Business	Credit	Payor	-	100%	\$250,000	2017
53.05	Washington	§82.16.110	Cost Recovery Incentive Payments for Electricity Renewable Energy System	Wind	Business	Credit	Payor	-	100%	\$250,000	2017
53.06	Washington	§82.04.4496	Alternative Fuel Commercial Vehicles	Electric Vehicle	Business	Credit	Owner	-	30-75%	\$25,000 - 100,000	2020
53.06	Washington	§82.04.4496	Alternative Fuel Commercial Vehicles	Alternative Fuel	Business	Credit	Owner	-	30-75%	\$25,000 - 100,000	2020
53.07	Washington	§82.08.956	Biofuel Materials	Biofuel	Sales	Exemption	Purchaser	-	100%	-	2024
53.08	Washington	§82.08.900	Anaerobic Digesters Sales	Biomass	Sales	Exemption	Purchaser	-	100%	-	-
53.09	Washington	§84.36.635	Anaerobic Digesters Facilities	Biomass	Property	Exemption	Purchaser	6	100%	-	2024
53.10	Washington	§82.04.294	Solar Silicon Manufacturing	Solar	Business	Abatement	Manufacturer	-	Varies	-	2027
53.11	Washington	§82.04.260	Wood Biomass Fuel Manufacturing	Biomass	Business	Abatement	Manufacturer	-	Varies	-	-
53.12	Washington	§82.08.900	Biogas Processing Equipment	Biogas	Sales	Exemption	Purchaser	-	100%	-	2024
53.13	Washington	§82.16.185	Energy Efficiency Incentives	Energy Efficiency	Utilities	Credit	Public Utility	-	100%	-	2032
53.14	Washington	§82.08	Hydrogen Fuel Cell Electric Vehicles	Electric Vehicle	Sales	Exemption	Purchaser	-	50-100%	\$16,000	2029
53.15	Washington	§ 82.16.170	Community Solar Programs	Solar	Utilities	Credit	Public Utility	-	Varies	1.5% taxable power sale	2036
53.16	Washington	§82.08.816	Electric vehicle batteries and fuel cells	Electric Vehicle	Sales	Exemption	Owner	-	100%	-	2025
53.16	Washington	§82.08.816	Electric vehicle batteries and fuel cells	Alternative Fuel	Sales	Exemption	Owner	-	100%	-	2025
53.17	Washington	§82.90.010	Solar Canopies	Solar	Sales	Deferral	Owner	-	100%	-	2032
53.18	Washington	§82.89.010	Clean energy investment	Electric Vehicle	Sales	Deferral	Investor	-	100%	-	2025
53.18	Washington	§82.89.010	Clean energy investment	Alternative Fuel	Sales	Deferral	Investor	-	100%	-	2025
53.18	Washington	§82.89.010	Clean energy investment	Various	Sales	Deferral	Investor	-	100%	-	2025
53.18	Washington	§82.89.010	Clean energy investment	Storage	Sales	Deferral	Investor	-	100%	-	2025
53.19	Washington	§84.36	Personal Property Generating Renewable Energy	Various	Property	Exemption	Owner	-	100%	-	-
54.00 West Virginia State Tax Incentives for Renewable Energy and Energy Efficiency											
54.01	West Virginia	§11-13-2o	Wind Energy Generation	Wind	Business	Abatement	Owner	-	88%	-	-
54.02	West Virginia	§11-6A-5a	Wind Energy Systems	Wind	Property	Assessment	Utility	-	25%	-	-
54.03	West Virginia	§11-6D-1	Alternative Fuel Vehicles and Refueling Infrastructure	Alternative Fuel	Income	Credit	Owner	-	35-62.5%	\$7,500-25,000/v	2021
54.03	West Virginia	§11-6D-1	Alternative Fuel Vehicles and Refueling Infrastructure	Alternative Fuel	Income	Credit	Owner	-	35-62.5%	\$200,000-\$250,000	2021
54.04	West Virginia	§11-13-2o	Solar Photovoltaic Generation	Solar	Business	Abatement	Owner	-	80%	-	-
55.00 Wisconsin State Tax Incentives for Renewable Energy and Energy Efficiency											
55.01	Wisconsin	§70.111(18)	Biogas, Solar, Wind-Energy Systems	Solar	Property	Exemption	Owner	-	100%	-	-
55.01	Wisconsin	§70.111(18)	Biogas, Solar, Wind-Energy Systems	Wind	Property	Exemption	Owner	-	100%	-	-
55.01	Wisconsin	§70.111(18)	Biogas, Solar, Wind-Energy Systems	Biomass	Property	Exemption	Owner	-	100%	-	-
55.02	Wisconsin	§66.0627 (8)	Renewable Energy And Energy-Efficiency Projects	Energy Efficiency	Property	Financing	Owner	-	21%	-	-
55.02	Wisconsin	§66.0627 (8)	Renewable Energy And Energy-Efficiency Projects	Various	Property	Financing	Owner	-	Varies	-	-
55.03	Wisconsin	§77.54(56)	Renewable Energy Systems	Biomass	Sales	Exemption	Purchaser	-	100%	-	-
55.03	Wisconsin	§77.54(56)	Renewable Energy Systems	Wind	Sales	Exemption	Purchaser	-	100%	-	-
55.03	Wisconsin	§77.54(56)	Renewable Energy Systems	Solar	Sales	Exemption	Purchaser	-	100%	-	-
55.03	Wisconsin	§77.54(56)	Renewable Energy Systems	Methane	Sales	Exemption	Purchaser	-	100%	-	-
55.04	Wisconsin	§71.28(5j)(b)	Ethanol And Biodiesel Fuel Pump	Biodiesel	Income	Credit	Owner	-	25%	\$5,000/station	2017
55.05	Wisconsin	§71.28	Vehicle And Energy-Efficiency Research Activities	Electric Vehicle	Income	Credit	Researcher	-	10%	-	-
55.06	Wisconsin	§70.111(18)	Electric Bicycles	Electric Vehicle	Property	Exemption	Owner	-	100%	-	-
56.00 Wyoming State Tax Incentives for Renewable Energy and Energy Efficiency											

00. Federal Tax Incentives for Renewable Energy and Energy Efficiency

00.01 Federal business income tax credit for renewable electricity production

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a business income tax credit per kilowatt hour of electricity produced from qualifying renewable resources during a ten-year period. *IRC §45; Notice 98-27, 1998-18 IRB 14; Notice 97-30, 1997-1 CB 416; Notice 96-25, 1996-1 CB 375; Rev. Proc. 2007-65; Announcement 2009-69; INFO 2010-0025; INFO 2010-0037; Notice 2010-37; Notice 2011-40; Notice 2012-35; Notice 2013-29; Notice 2013-33; PLR 201308021; Notice 2014-36; Notice 2014-39; Notice 2014-46; Notice 2015-25; Notice 2015-32; Notice 2015-51; PLR 201510038; P.L. 114-113 (2015); Notice 2016-31; Notice 2016-34; Notice 2017-04; Notice 2017-33; P.L. 115-123 (2018); PLR 201923019; Notice 2019-41; Notice 2019-43; HB 1865 (2019); PLR 202008003; Notice 2020-38; Notice 2020-41; *Ampersand Chowchilla Biomass, LLC v. U.S., Ct Fed Cl, 126 AFTR 2d 2020-545; HB 133 (2020); Notice 2021-05; Notice 2021-41; FR Doc. 2022-07967; FR Doc. 2022-09695; H.R. 5378 (2022); Notice 2022-20; Announcement 2022-23; Notice 2022-61; Notice 2023-29; Notice 2023-38; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6417-5; Notice 2023-45; Notice 2023-47; Notice 2023-51; Prop. Treas. Reg §§1.45-6 through 1.45-8, 1.45-12.**

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers producing electricity from qualifying renewable resources and selling the electricity produced to an unrelated person.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit multiplied by the applicable percentage. A pre-filing registration is required to make an election.

- (i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.
 - (ii). With respect to any facility or property held directly by a partnership or S corporation, any election shall be made by such partnership or S corporation.
 - (iii). The applicable percentage is: 100% for qualified facilities (a) meeting domestic content requirements (with exceptions from the Secretary for cost of construction increases and availability limitations), or (b) under 1 MW output (AC); 100% for qualified facilities that began construction on or before December 31, 2023; 90% for qualified facilities that began construction in calendar year 2024.
2. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.
- (i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.
 - (ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.
 - (iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.
 - (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.

- (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must produce electricity from qualifying renewable resources and sell the electricity produced to an unrelated person. Qualifying energy resources are wind, closed-loop biomass, open-loop biomass, geothermal energy, municipal solid waste, marine and hydrokinetic renewables.

1. Qualifying closed-loop biomass is any organic material from a plant that is planted exclusively for purposes of being used at a qualifying facility to produce electricity.

- (i). Qualifying closed-loop biomass facilities may include facilities modified to use closed-loop biomass to co-fire with coal, with other biomass, or with both, but only if the modification is approved under the Biomass Power for Rural Development Programs or is part of a pilot project of the Commodity Credit Corporation.

2. Qualifying open-loop biomass generally is any agricultural livestock waste nutrients or any solid, nonhazardous, cellulosic waste material or any lignin material that is derived from: (1) any of the following forest-related resources: mill and harvesting residues, precommercial thinnings, slash, and brush; (2) solid wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, or (3) agriculture sources, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues.

- (i). Qualifying open-loop biomass does not include municipal solid waste, gas derived from the biodegradation of solid waste, or paper that is commonly recycled.

3. Qualifying geothermal energy is energy derived from a geothermal deposit or reservoir consisting of natural heat that is stored in

rocks or in an aqueous liquid or vapor (whether or not under pressure).

4. Qualifying municipal solid waste facilities include landfill gas facilities and trash combustion facilities, and does not include paper which is commonly recycled and which has been segregated from other solid waste.

5. Qualifying marine and hydrokinetic energy is energy derived from waves, tides, and currents in oceans, estuaries and tidal areas; free flowing water in rivers, lakes and streams; free flowing water in an irrigation system, canal or other man-made channel, including projects that use non-mechanical structures to accelerate the flow of water for electric power production purposes; differentials in ocean temperature (ocean thermal energy conversion); pressurized water used in a pipeline (or similar man-made water conveyance) which is operated (I) for the distribution of water for agricultural, municipal, or industrial consumption, and (II) not primarily for the generation of electricity. Qualifying marine and hydrokinetic facilities producing electricity must have a nameplate capacity rating of at least 25 kilowatts.

- (i). Qualifying marine and hydrokinetic energy does not include any energy that is derived from any source that uses a dam, diversionary structure or impoundment for electric power production purposes.

6. Qualifying offshore wind facility is a qualifying wind facility which is located in the inland navigable waters of the United States or in the coastal waters of the United States.

7. Electricity produced by the Taxpayer shall be treated as sold by such Taxpayer to an unrelated person during the taxable year if- (A) such electricity is used during such taxable year by the Taxpayer or a person related to the Taxpayer at a qualified clean hydrogen production facility to produce qualified clean hydrogen, and (B) such use and production is verified by an unrelated third party.

D. INCENTIVE AMOUNTS. The base tax credit amount is \$0.0055 (2023) per kWh of electricity produced and sold to an unrelated person. The tax credit amount for a qualified facility meeting prevailing wage and apprenticeship requirements is \$0.0275 (2023) per kWh. The base tax credit

amount for open-loop biomass, small irrigation power, municipal solid waste is \$0.003 (2023) per kWh of electricity produced and sold to an unrelated person. The tax credit amount for a qualified facility for open-loop biomass, small irrigation power, municipal solid waste meeting prevailing wage and apprenticeship requirements is \$0.015 (2023) per kWh. The tax credit amount for qualified facility meeting domestic content requirements is increased by 10%. The tax credit amount for qualified facility located in an energy community is increased by 10%.

1. For qualifying wind facilities placed in service on or before December 31, 2021, the tax credit amount is reduced by: (i) 20% for a facility which begins construction after December 31, 2016; (ii) 40% for a facility which begins construction after December 31, 2017; and (iii) 60% for a facility which begins construction after December 31, 2018.

2. A qualified facility is (i) a facility with a maximum net output of less than 1 megawatt (as measured in alternating current), (ii) a facility the construction of which begins prior to the date that is 60 days after the Secretary publishes guidance with respect to the prevailing wage and apprenticeship requirements, or (iii) a facility which satisfies the prevailing wage and apprenticeship requirements.

3. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction, or, within the tax credit period, the alteration or repair of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

- (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.
- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.

(iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.

(iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.

(v). The facility location includes secondary sites where a significant portion of the construction, alteration or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.

(vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.

(vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.

(viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.

(ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.

- (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
4. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
 - (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
- (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
- (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
- (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
5. Domestic content requirements require Taxpayer to certify that any steel, iron, or manufactured product which is a component of any such facility (upon completion of construction) was produced in the United States.
- (i). Manufactured products shall be deemed to have been produced in the United States if not less than 40% (20% for offshore wind facilities) for construction beginning before 2025, 45% (27.5% for offshore wind facilities) for construction beginning before 2026, 50% (35% for offshore wind facilities) for construction beginning before 2027, 55% for construction beginning on or after 2027 (45% for offshore wind facilities beginning construction before 2028 and 55% for offshore wind facilities beginning construction on or after 2028) of the total costs of all such manufactured products of such facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.

- (ii). A manufactured product component is considered to be of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.
6. An energy community is (i) a brownfield site; (ii) a metropolitan statistical area or non-metropolitan statistical area which, as determined by the Secretary, (I) has or had 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, and (II) has an unemployment rate at or above the national average unemployment rate for the previous year; (iii) a census tract (I) in which after December 31, 1999, a coal mine has closed, or after December 31, 2009, a coal-fired electric generating unit has been retired, or (II) which is directly adjoining to any census tract described in subclause (I).
- (i). A brownfield site is defined in 42 U.S.C. § 9601(39). A safe harbor provides that a site will be considered a brownfield site if (1) The site was previously assessed through federal, state, territory, or federally recognized Indian tribal brownfield resources as meeting the definition of a brownfield site under 42 U.S.C. § 9601(39)(A); (2) An ASTM E1903 Phase II Environmental Site Assessment (Phase II Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process of ASTM International and such Phase II Assessment confirms the presence on the site of a hazardous substance as defined under 42 U.S.C. § 9601(14), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33); or (3) For projects with a nameplate capacity of not greater than 5MW (AC), an ASTM E1527 Phase I Environmental Site Assessment (Phase I Assessment) has been completed with respect to the site in accordance with the most

current applicable version of the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process of ASTM International and the Phase I Assessment identifies the presence or potential presence of a hazardous substance as defined under 42 U.S.C. § 9601(14) (hazardous substance), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33) (pollutant or contaminant).

- (ii). A project is considered located in or placed in service within an energy community if 50% or more of the project's nameplate capacity (or square footage if a project does not have a nameplate capacity) is in an area that qualifies as an energy community.

E. INCENTIVE LIMITS. The tax credit amount is reduced by an amount determined by dividing the excess of the reference price for the calendar year of sale over \$0.08 per KWH by \$0.0409 (2022). Reference price is the annual average contract price per KWH of electricity generated from the same qualifying energy resource and sold in the U.S. in the previous year.

1. For tax-exempt bond projects, the tax credit amount is reduced by the lesser of 15% and a fraction which is: (i) the tax-exempt financing, divided by (ii) aggregate amount of additions to the capital account.

F. INCENTIVE TIMEFRAME. The tax credit is available for a 10-year period beginning on the placed-in-service date of the qualifying facility.

1. The tax credit for qualifying closed-loop biomass facilities expires December 31, 2024. Qualifying closed-loop biomass facilities must begin construction on or before December 31, 2024.
2. The tax credit for qualifying open-loop biomass facilities expires December 31, 2024. Qualifying open-loop biomass facilities must begin construction on or before December 31, 2024.

3. The tax credit for qualifying wind facilities expires December 31, 2024. Qualifying wind facilities must begin construction on or before December 31, 2024.

4. The tax credit for qualifying landfill gas facilities expires December 31, 2024. Qualifying landfill gas facilities must begin construction on or before December 31, 2024.

5. The tax credit for qualifying geothermal energy facilities expires December 31, 2024. Qualifying geothermal facilities must begin construction on or before December 31, 2024.

6. The tax credit for qualifying solar energy facilities expires December 31, 2024. Qualifying solar energy facilities must begin construction on or before December 31, 2024.

7. The tax credit for qualifying marine and hydrokinetic energy facilities expires December 31, 2024. Qualifying marine and hydrokinetic energy facilities must begin construction on or before December 31, 2024.

8. Taxpayer may establish the beginning of construction by starting physical work of a significant nature or by meeting the safe harbor of paying or incurring 5% or more of the total cost of the facility or 3% or more of the total cost of the facility with respect to some individual facilities, provided certain other requirements are met.

9. Domestic content requirements and phaseout, energy communities 10% boost, and marine and hydrokinetic amendments shall apply to facilities placed in service after December 31, 2022.

G. MISCELLANEOUS.

1. Taxpayer may make an irrevocable election to take a 30% tax credit under IRC §48 instead of the tax credit above.

2. If Taxpayer places a facility in service by the later of (1) a calendar year that is no more than six calendar years after the calendar year during which construction of the facility began, (2) for any qualified facility or energy property that began construction under the Physical Work Test or the Five Percent Safe Harbor in calendar year 2020, a calendar year that is no more than five calendar years after the calendar year during which construction of the facility began or (3) December 31, 2023, the

facility will be considered to satisfy the Continuity Safe Harbor.

3. The Continuity Requirement is satisfied if the taxpayer demonstrates satisfaction of either the Continuous Construction Test or the Continuous Efforts Test, regardless of whether the Physical Work Test or the Five Percent Safe Harbor was used to establish the beginning of construction.

00.02 Federal business income tax credit for investment in energy property

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a business income tax credit in the amount of 2 - 30% the basis of qualifying energy property investments. *IRC §48; Treas. Reg §1.48-1 through -9; Rev Rul 70-236; Rev Rul 79-183; Notice 2008-68, 2008-34 IRB 418; PLR 200947027; PLR 201043023; PLR 201043023; PLR 201121005; CCA 2011222017; PLR 201142022; PLR 201142005; PLR 201308005; Notice 2014-39; PLR 201426013; PLR 201444025; PLR 201450013; Notice 2015-4; PLR 201523014; CCA 201524024; P.L. 114-113 (2015); PLR 201611011; PLR 201640010; Notice 2017-04; Rev. Proc. 2017-19; 2017; P.L. 115-123 (2018); Notice 2018-59; PLR 201841001; Notice 2019-43; PLR 201949002; Notice 2020-41; HB 133 (2020); Notice 2021-05; Notice 2021-41; H.R. 5378 (2022); Notice 2022-61; Notice 2023-17; Notice 2023-29; Notice 2023-38; Treas. Reg §1.48(e)-1; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6417-5; Notice 2023-45; Notice 2023-47; Rev. Proc. 2023-27; Prop. Treas. Reg §1.48-13.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners placing qualifying energy property in service.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit multiplied by the applicable percentage. A pre-filing registration is required to make an election.

- (i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.
 - (ii). The applicable percentage is: 100% for qualified facilities (a) meeting domestic content requirements (with exceptions from the Secretary for cost of construction increases and availability limitations), or (b) under 1 MW output (AC); 100% for qualified facilities that began construction on or before December 31, 2023; 90% for qualified facilities that began construction in calendar year 2024.
 - (iii). Income, including income from certain grants and forgivable loans, that is exempt from taxation under subtitle A and used to purchase, construct, reconstruct, erect, or otherwise acquire an applicable credit property described in sections 30C, 45W, 48, 48C, or 48E (investment-related credit property) are included in basis for purposes of computing the applicable credit amount determined with respect to the applicable credit property.
2. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.
- (i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.
 - (ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.
 - (iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.
 - (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.
 - (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.
- C. QUALIFYING ACTIVITY. Taxpayer must place qualifying energy property in service. Qualifying energy property is fuel cell property, solar energy property, small wind energy property, geothermal property, geothermal heat pump systems property, microturbine property, combined heat and power system property, energy storage technology, qualified biogas property, microgrid controllers, qualified interconnection property and waste energy recovery property. Qualifying energy property includes qualified property which is part of a specified clean hydrogen production facility. Qualifying energy property must meet performance and quality standards prescribed by regulations, which are in effect at the time of the acquisition of the property. Qualifying fuel cell property is an integrated system comprised of a fuel cell stack assembly or linear generator assembly and associated balance of plant components which converts a fuel into electricity using electrochemical or electromechanical means, that has a nameplate capacity of at least 0.5 kilowatt of electricity using an electrochemical or electromechanical process, and 1 kilowatt in the case of a fuel cell power plant with a linear generator assembly, and has an electricity-only generation efficiency greater than 30%. Qualifying solar energy property is equipment which uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a building or structure, or to provide solar process heat. Qualifying small wind energy property is property that uses a wind turbine that has a nameplate capacity of not more than 100 kilowatts to generate electricity. Qualifying geothermal property is equipment used to produce, distribute, or use energy derived from a geothermal deposit including well-head and “downhole” equipment (such as screening or slotted liners, tubing,

downhole pumps, and associated equipment). Qualifying geothermal heat pump system property is equipment that uses the ground or ground water as a thermal energy source to heat a structure or as a thermal energy sink to cool a structure. Qualifying microturbine property is a stationary microturbine power plant that has (1) a nameplate capacity of less than 2,000 kilowatts and (2) an electricity-only generation efficiency of not less than 26% at International Standard Organization conditions. Qualifying combined heat and power system property is property which uses the same energy source for the simultaneous or sequential generation of electrical power, mechanical shaft power, or both, in combination with the generation of steam or other forms of useful thermal energy (including heating and cooling applications), which produces at least 20% of its total useful energy in the form of thermal energy which is not used to produce electrical or mechanical power (or combination thereof), and at least 20% of its total useful energy in the form of electrical or mechanical power (or combination thereof), the energy efficiency percentage of which exceeds 60%. Qualifying waste energy recovery property is property that generates electricity solely from heat from buildings or equipment if the primary purpose of such building or equipment is not the generation of electricity. Qualifying energy storage technology property is (i) property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) which receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen, which stores energy), and has a nameplate capacity of not less than 5 kilowatt hours, and (ii) thermal energy storage property. Qualified biogas property is property comprising a system which (i) converts biomass into a gas which (I) consists of not less than 52 percent methane by volume, or (II) is concentrated by such system into a gas which consists of not less than 52 percent methane, and (ii) captures such gas for sale or productive use, and not for disposal via combustion. Qualified microgrid controller property is equipment which is (i) part of a qualified microgrid, and (ii) designed and used to monitor and control the energy resources and loads on such microgrid. Qualified interconnection property is any tangible property (i) which is part of an addition, modification, or upgrade to a transmission or distribution system which is

required at or beyond the point at which the energy project interconnects to such transmission or distribution system in order to accommodate such interconnection, (ii) either (I) which is constructed, reconstructed, or erected by the Taxpayer, or (II) for which the cost with respect to the construction, reconstruction, or erection of such property is paid or incurred by such Taxpayer, and (iii) the original use of which, pursuant to an interconnection agreement, commences with a utility.

1. Qualifying fiber-optic solar energy property includes equipment that uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight or electrochromic glass which uses electricity to change its light transmittance properties in order to heat or cool a structure.
2. Qualifying solar energy property includes reflective roof surfaces when installed with rooftop photovoltaic solar generation system. Reflective roof constitutes energy property under Code Sec. 48 only to extent that cost of reflective roof exceeds cost of reroofing building with non-reflective roof allowed by local law.
3. Qualifying solar energy property includes a building's structural components that use solar energy to produce electricity. Qualifying solar energy property includes installed solar roof-mounted system except to the extent that Regs. §1.48-9 requires that a portion of the basis of the property is allocable to any portion of such property that performs the function of a roof, e.g., protection from rain, snow, wind, sun, hot or cold temperatures or that provides structural support or insulation.
4. Qualifying solar energy property includes the photovoltaic (PV) curtain wall (in its component parts) which generated electricity through the use of solar energy and also enclosed the building.
5. Qualifying solar energy property does not include property used to generate energy for the purpose of heating a swimming pool.
6. Qualifying geothermal equipment does not need to be specially designed for geothermal use, but must be used exclusively for geothermal use.
7. Qualifying energy property includes storage devices, collection panels, storage batteries, wiring, conversion equipment,

control equipment and solar panel mounting equipment of Taxpayer's solar energy systems, as well as structure upon which solar panels are mounted.

8. Qualifying small wind energy property must meet the performance and quality standards of AWEA Standard 9.1-2009 or IEC 61400-1, 61400-12 and 61400-11.

9. Qualifying waste energy recovery property does not include any property which has a capacity in excess of 50 megawatts.

10. Qualifying offshore wind facility is a qualifying wind facility which is located in the inland navigable waters of the United States or in the coastal waters of the United States.

11. Qualifying energy storage property includes such modifications of: (i) property placed in service before enactment of Section 48(c)(6) to a capacity of not less than 5 kwh; (ii) property to an increase of capacity of not less than 5 kwh.

12. Qualifying thermal energy storage is property comprising a system which (I) is directly connected to a heating, ventilation, or air conditioning system, (II) removes heat from, or adds heat to, a storage medium for subsequent use, and (III) provides energy for the heating or cooling of the interior of a residential or commercial building. Qualifying thermal energy storage property does not include (I) a swimming pool, (II) combined heat and power system property, or (III) a building or its structural components.

13. Biomass is any organic material other than oil and natural gas (or any product thereof), and coal (including lignite) or any product thereof.

14. Qualified biogas property includes any property which is part of such system which cleans or conditions such gas.

15. Qualified facility does not include a facility which produces electricity from gas produced by qualified biogas property if a tax credit is allowed on such property.

16. Qualified microgrid is an electrical system which (i) includes equipment which is capable of generating not less than 4 kilowatts and not greater than 20 megawatts of electricity, (ii) is capable of operating (I) in connection with the electrical grid and as a single controllable entity with respect to such grid, and (II) independently (and disconnected) from such

grid, and (iii) is not part of a bulk-power system.

17. Bulk-power systems are (A) facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof); and (B) electric energy from generation facilities needed to maintain transmission system reliability. Bulk-power systems do not include facilities used in the local distribution of electric energy.

18. Linear generator assembly does not include any assembly which contains rotating parts.

19. Qualified interconnection property must be in connection with the installation of qualifying energy property which has a maximum net output of not greater than 5 megawatts (as measured in alternating current), to provide for the transmission or distribution of the electricity produced or stored by such property.

20. An interconnection agreement is an agreement with a utility for the purposes of interconnecting the energy property owned by Taxpayer to the transmission or distribution system of such utility. A utility is the owner or operator of an electrical transmission or distribution system which is subject to the regulatory authority of a State or political subdivision hereof, any agency or instrumentality of the United States, a public service or public utility commission or other similar body of any State or political subdivision thereof, or the governing or ratemaking body of an electric cooperative.

D. INCENTIVE AMOUNTS. The base tax credit amount is 6% of the cost of fuel cell property, solar energy property, small wind energy property, geothermal property, geothermal heat pump systems property, qualifying combined heat and power system property, energy storage technology, qualified biogas property, microgrid controllers and waste energy recovery property. The base tax credit amount is 2% the cost of qualifying microturbine property. The base 6% tax credit amount is increased to 30% for energy projects consisting of one or more qualified properties: (i) with a maximum net output of less than 1 megawatt (as measured in alternating

current), (ii) the construction of which begins prior to the date that is 60 days after the Secretary publishes guidance with respect to the prevailing wage and apprenticeship requirements, or (iii) satisfies the prevailing wage and apprenticeship requirements. The tax credit amount for an energy project meeting domestic content requirements is increased by 10% and by 2% for energy projects that do not qualify for the increase to 30%. The tax credit amount for energy project located in an energy community is increased by 10% and by 2% for energy projects that are not located in an energy community. The tax credit amount for qualifying environmental justice solar and wind facilities is increased by up to 10% for projects located in a low-income community or Indian land and 20% for projects that are part of a qualified low-income residential building project or qualified low-income economic benefit project.

1. Qualifying costs includes property financed with nonqualifying nonrecourse financing, subsidized financing or tax-exempt private activity bonds.

2. For qualifying solar energy property, the tax credit amount is reduced to: (i) 26% for a facility which begins construction after December 31, 2019 and placed in service on or before December 31, 2021.

3. For qualifying wind facilities placed in service on or before December 31, 2021, the tax credit amount is reduced to: (i) 24% for a facility which begins construction after December 31, 2016; (ii) 18% for a facility which begins construction after December 31, 2017; and (iii) 12% for a facility which begins construction after December 31, 2018; and (iv) 0% for a facility which begins construction after December 31, 2019. For qualifying offshore wind facilities, the tax credit reduction does not apply.

4. For qualifying fiber-optic solar, fuel cell and small wind property the tax credit amount is reduced to: (i) 26% for a facility which begins construction after December 31, 2019 and placed in service on or before December 31, 2021.

5. For qualifying geothermal property the tax credit amount is reduced to: (i) 5.2% for a facility which begins construction after December 31, 2032; (ii) 4.4% for a facility which begins construction after December 31,

2033; and (iii) 0% for a facility which begins construction after December 31, 2034.

6. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction, or, within the tax credit period, the alteration or repair of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

(i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.

(ii). Taxpayer may request a supplemental wage determination from the Department of Labor.

(iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.

(iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.

(v). The facility location includes secondary sites where a significant portion of the construction, alteration or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.

(vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.

(vii). The taxpayer must pay a penalty equal to \$5,000

- (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
- (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
- (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
- (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
7. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
- (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
- (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
- (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
- (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
- (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
- (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
- (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
8. Domestic content requirements require Taxpayer to certify that any steel, iron, or manufactured product which is a component of any such facility (upon completion of

construction) was produced in the United States.

- (i). Manufactured products shall be deemed to have been produced in the United States if not less than 40% (20% for offshore wind facilities) for construction beginning before 2025, 45% (27.5% for offshore wind facilities) for construction beginning before 2026, 50% (35% for offshore wind facilities) for construction beginning before 2027, 55% for construction beginning on or after 2027 (45% for offshore wind facilities beginning construction before 2028 and 55% for offshore wind facilities beginning construction on or after 2028) of the total costs of all such manufactured products of such facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.
 - (ii). A manufactured product component is considered to be of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.
9. An energy community is (i) a brownfield site; (ii) a metropolitan statistical area or non-metropolitan statistical area which, as determined by the Secretary, (I) has or had 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, and (II) has an unemployment rate at or above the national average unemployment rate for the previous year; (iii) a census tract (I) in which after December 31, 1999, a coal mine has closed, or after December 31, 2009, a coal-fired electric generating unit has been retired, or (II) which is directly adjoining to any census tract described in subclause (I).
- (i). A brownfield site is defined in 42 U.S.C. § 9601(39). A safe harbor provides that a site will be considered a brownfield site if (1) The site was previously assessed through federal, state, territory, or federally recognized Indian tribal brownfield resources as meeting the definition of a brownfield site under 42 U.S.C. § 9601(39)(A);

(2) An ASTM E1903 Phase II Environmental Site Assessment (Phase II Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process of ASTM International and such Phase II Assessment confirms the presence on the site of a hazardous substance as defined under 42 U.S.C. § 9601(14), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33); or (3) For projects with a nameplate capacity of not greater than 5MW (AC), an ASTM E1527 Phase I Environmental Site Assessment (Phase I Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process of ASTM International and the Phase I Assessment identifies the presence or potential presence of a hazardous substance as defined under 42 U.S.C. § 9601(14) (hazardous substance), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33) (pollutant or contaminant).

- (ii). A project is considered located in or placed in service within an energy community if 50% or more of the project's nameplate capacity (or square footage if a project does not have a nameplate capacity) is in an area that qualifies as an energy community.

10. Qualifying environmental justice solar and wind facilities are qualified solar and wind facilities with respect to which the Secretary makes an allocation of environmental justice solar and wind capacity limitation which: (i) generates electricity solely from a wind facility, solar energy equipment (including energy storage technology installed in connection with such qualified solar or wind facility), (ii)

has a maximum net output of less than 5 megawatts (as measured in alternating current), and (iii) (I) is located in a low-income community (as defined in Section 45D(e)) or on Indian land (as defined in section 2601(2) of the Energy Policy Act of 1992 (25 U.S.C. 3501(2))), or (II) is part of a qualified low-income residential building project or a qualified low-income economic benefit project. At least 50% of the total capacity limitation in each facility category will be reserved for qualified facilities meeting the additional selection criteria relating to ownership and geography.

- (i). A low-income community is any population census tract if the poverty rate for such tract is at least 20 percent, or in the case of a tract not located within a metropolitan area, the median family income for such tract does not exceed 80 percent of statewide median family income, or in the case of a tract located within a metropolitan area, the median family income for such tract does not exceed 80 percent of the greater of statewide median family income or the metropolitan area median family income (as referenced in the New Markets Tax Credit statute).
- (ii). A qualified low-income residential building project is a residential rental building which participates in a covered housing program (as defined in section 41411(a) of the Violence Against Women Act of 1994 (34 U.S.C. 12491(a)(3), which includes the low income housing tax credit program under Section 42), a housing assistance program administered by the Department of Agriculture under title V of the Housing Act of 1949, a housing program administered by a tribally designated housing entity (as defined in section 4(22) of the Native American Housing Assistance and Self-Determination Act of 1996 (25 U.S.C. 4103(22))) or such other affordable housing programs as the Secretary may provide, and (ii) the financial benefits of the electricity produced by such facility are

allocated equitably among the occupants of the dwelling units of such building.

- (iii). A qualified low-income economic benefit project is a facility where at least 50 percent of the financial benefits of the electricity produced by such facility are provided to households with income of (i) less than 200 percent of the poverty line (as defined in Section 36B(d)(3)(A)) applicable to a family of the size involved, or (ii) less than 80 percent of area median gross income (as determined under Section 142(d)(2)(B)).
- (iv). Financial benefit includes acquiring electricity at a below-market rate.
- (v). Multiple facilities that are operated as a part of a single project are aggregated and treated as a single facility for determining.
- (vi). Energy storage technology is installed in connection with other eligible property if it is charged no less than an annual average of 50% by the other eligible property.
- (vii). Taxpayer owner applies for and receives the allocation of capacity limitation. Taxpayer may transfer the allocation with approval from the IRS.
- (viii). Additional selection criteria based on ownership and geography will be prioritized. Ownership criteria include ownership by a tribal enterprise, an Alaskan native corporation, a renewable energy cooperative, a qualified renewable energy company, or a qualified tax-exempt entity. Geography criteria include location in a persistent poverty county (PPC) or Climate and Economic Justice Screening Tool (CEJST) census tract.

11. The base tax credit amount for qualified property which is part of a specified clean hydrogen production facilities is: 1.2% for facilities designed to produce clean hydrogen with a lifecycle greenhouse emission rate of less than 4 kilograms of CO₂e per kilogram of

hydrogen, 1.5% for facilities designed to produce clean hydrogen with a lifecycle greenhouse emission rate of less than 2.5 kilograms of CO₂e per kilogram of hydrogen, 2% for facilities designed to produce clean hydrogen with a lifecycle greenhouse emission rate of less than 1.5 kilograms of CO₂e per kilogram of hydrogen, and 6% for facilities designed to produce clean hydrogen with a lifecycle greenhouse emission rate of less than 0.45 kilograms of CO₂e per kilogram of hydrogen.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$1,500 for each 0.5 kilowatt of capacity for qualifying fuel cell property and \$200 for each kilowatt of capacity for qualifying microturbine property.

1. For tax-exempt bond projects, the tax credit amount is reduced by the lesser of 15% and a fraction which is: (i) the tax-exempt financing, divided by (ii) aggregate amount of additions to the capital account.
2. For qualifying environmental justice solar and wind facilities the allocation limits are 1.8 gigawatts of direct current capacity for 2023 and 2024, and zero thereafter.

F. INCENTIVE TIMEFRAME. The tax credit phases out and facilities must begin construction by December 31, 2024. Unused tax credit may be carried back 1 year and carried forward 20 years.

1. Taxpayer may establish the beginning of construction by starting physical work of a significant nature or by meeting the safe harbor of paying or incurring 5% or more of the total cost of the facility or 3% or more of the total cost of the facility with respect to some individual facilities, provided certain other requirements are met.
2. Domestic content requirements and phaseout, energy communities boost, interconnection, energy storage, qualified biogas, microgrid controllers amendments, shall apply to facilities placed in service after December 31, 2022.
3. Qualified environmental justice wind and solar facilities must be placed in service within 4 years of the allocation.

4. Qualified environmental justice wind and solar facilities amendments take effect after December 31, 2022.

5. For environmental justice capacity limitation, there will be a 30-day period during which time applications will initially be accepted for each category. All applications submitted within the 30-day period will be treated as submitted on the same date and at the same time.

6. Following the 30-day period, DOE will generally accept applications on a rolling basis and will review applications and provide recommendations to the IRS in the order applications are received until the IRS allocates all Capacity Limitation in a program year. The IRS will award the applicants in the order that it receives recommendations from DOE.

G. MISCELLANEOUS.

1. The tax credit may be recaptured if the energy property is disposed of or otherwise ceases to be energy property before the end of the 5-year period after the property is placed in service. There is a 20% recapture of credit for each full year the property ceases to be qualifying energy property. Recapture is not triggered if a disposition or cessation occurs 5 years or more after the date the property is placed in service.

2. If Taxpayer places a facility in service by the later of (1) a calendar year that is no more than six calendar years after the calendar year during which construction of the facility began, (2) for any qualified facility or energy property that began construction under the Physical Work Test or the Five Percent Safe Harbor in calendar year 2020, a calendar year that is no more than five calendar years after the calendar year during which construction of the facility began or (3) December 31, 2023, the facility will be considered to satisfy the Continuity Safe Harbor. The Continuity Requirement is satisfied if the taxpayer demonstrates satisfaction of either the Continuous Construction Test or the Continuous Efforts Test, regardless of whether the Physical Work Test or the Five Percent Safe Harbor was used to establish the beginning of construction.

3. Eligible basis of the Low-Income Housing Tax Credit is not reduced for any energy credit determined.
4. Amounts otherwise chargeable to capital account for expenses paid or incurred for interconnection property shall be reduced under rules similar to rules of Section 50(c).
5. Services contracts involving energy storage technologies shall be treated as a service contract pursuant to Section 7701(e).
6. No tax credit shall be allowed under Section 45V for any taxable year with respect to any specified clean hydrogen production facility included at such facility.

00.03 Federal business income tax credit for qualifying alternative fuel vehicle refueling property

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a business income tax credit in the amount of 6% or 30% of the cost of installing qualifying alternative fuel vehicle refueling property. *IRC §30C; Notice 2007-43, 2007-22 IRB 1318; PLR 201034007; P.L. 114-113 (2015); P.L. 115-123 (2018); HB 1865 (2019); HB 133 (2020); H.R. 5378 (2022); Notice 2022-61; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6417-5; Prop. Treas. Reg §1.30C-3.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of qualifying alternative fuel vehicle refueling property.

1. Taxpayer selling the property to a tax-exempt purchaser may claim the tax credit. Taxpayer seller must clearly disclose to the tax-exempt purchaser the amount of any tax credit allowable for that property.
2. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.
 - (i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley

Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

- (ii). Income, including income from certain grants and forgivable loans, that is exempt from taxation under subtitle A and used to purchase, construct, reconstruct, erect, or otherwise acquire an applicable credit property described in sections 30C, 45W, 48, 48C, or 48E (investment-related credit property) are included in basis for purposes of computing the applicable credit amount determined with respect to the applicable credit property.

3. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.

- (i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.
- (ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.
- (iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.
- (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.
- (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must own qualifying alternative fuel vehicle refueling property. Qualifying alternative fuel vehicle

refueling property is property for the storage or dispensing of a clean-burning fuel or electricity into the fuel tank or battery of a motor vehicle propelled by such fuel or electricity. The storage or dispensing of the fuel or electricity must be at the point of delivery into the fuel tank or battery of the motor vehicle. Clean-burning fuels are fuels at least 85% of the volume of which consists of ethanol, natural gas, compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen or any mixture of biodiesel and diesel fuel, determined without regard to any use of kerosene and containing at least 20% biodiesel. Qualified alternative fuel vehicle refueling property must be located in an eligible census tract. An eligible census tract is any population census tract which (I) is described in Section 45D(e), or (II) is not a census tract which has been designated as an urban area by the Secretary of Commerce.

1. Qualifying alternative fuel vehicle refueling property does not include a building or its structural components.
2. Qualifying alternative fuel vehicle refueling property must not be used predominantly outside the U.S. and may be used predominantly in a U.S. possession.
3. Qualifying alternative fuel vehicle refueling property does not include hydrogen refueling station that dispenses hydrogen into fork lift trucks.
4. Qualifying alternative fuel vehicle refueling property includes property capable of charging the battery of a motor vehicle propelled by electricity and allows discharging electricity from such battery to an electric load external to such motor vehicle.
5. Qualifying alternative fuel vehicle refueling property includes property of a character subject to depreciation which charges 2 or 3 wheel electric vehicles manufactured primarily for use on public streets.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the cost of qualifying alternative fuel vehicle refueling property. The tax credit amount is 6% of the cost of qualifying alternative fuel vehicle refueling property of a character subject to depreciation, or 30% of the cost for projects (i) installed prior to the date that is 60 days after the Secretary publishes guidance with respect to the

prevailing wage requirements and apprenticeship requirements, or (ii) that satisfy the prevailing wage and apprenticeship requirements. The cost of qualifying alternative fuel vehicle refueling property includes the cost of acquiring or constructing the qualifying alternative fuel vehicle refueling property or of converting conventional refueling property into qualifying alternative fuel vehicle refueling property.

1. The cost of qualifying alternative fuel vehicle refueling property does not include costs that are properly allocable to land or to a building and its structural components. Costs properly allocable to land include costs related to the acquisition of land on which the qualifying alternative fuel vehicle refueling property is located and expenses for permits, legal fees, project management, or engineering to the extent such expenses are related to the land.
2. The cost of qualifying alternative fuel vehicle refueling property does not include any amount that is taken into account under Section 179 (relating to the election to expense certain depreciable business assets).
3. If converted qualifying alternative fuel vehicle refueling property is treated as reconditioned or rebuilt property, the cost of the qualifying alternative fuel vehicle refueling property includes the cost of reconditioning or rebuilding the non-qualifying alternative fuel vehicle property, but does not include the basis of the non-qualifying alternative fuel vehicle property. For converted qualifying alternative fuel vehicle refueling property, the cost of the qualifying alternative fuel vehicle refueling property includes both the adjusted basis of the non-qualifying alternative fuel vehicle property immediately before the conversion and the cost of the conversion.
4. The cost of qualifying alternative fuel vehicle refueling property that is dual-use property used to store and/or dispense both alternative fuel and conventional fuel, includes the cost of the dual-use property only to the extent such cost exceeds the cost of equivalent conventional refueling property.
5. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in

the construction, or the alteration or repair of the property, shall be paid wages at rates not less than the prevailing rates in the locality in which such property is located as determined by the Secretary of Labor.

- (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.
- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
- (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.
- (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
- (v). The facility location includes secondary sites where a significant portion of the construction, alternation or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
- (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
- (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.

- (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
- (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
- (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

6. Apprenticeship requirements require that not less than: (i) 10%, for properties which begin construction on or before December 31, 2022, (ii) 12.5%, for properties which begin construction on or before December 31, 2023, and (ii) 15%, for properties which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.

- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
- (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
- (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
- (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.

- (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
- (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
- (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
- (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amounts are \$100,000 per item of qualifying alternative fuel vehicle refueling property used in a trade or business and \$1,000 per item of qualifying alternative fuel vehicle refueling property installed on property which is used as a principal residence.

1. The maximum tax credit allowable for qualifying alternative fuel vehicle refueling

property installed on property which is used as a principal residence cannot exceed for any taxable year the difference between Taxpayer's regular tax (reduced by certain other credits) and Taxpayer's tentative minimum tax.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2032. Unused tax credit for qualifying refueling property used in a trade or business may be carried back 1 year and forward 20 years.

G. **MISCELLANEOUS.**

1. The tax credit may be recaptured if the alternative fuel vehicle refueling property ceases to qualify as qualifying alternative fuel vehicle refueling property.
2. Taxpayer's basis in qualifying alternative fuel vehicle refueling property is reduced by the amount of the tax credit allowed, determined without regard to the Section 30C(d) rules treating part of the tax credit as a general business credit and limiting the use of the remainder.
3. Taxpayer may elect not to have Section 30C apply, upon which no tax credit will be allowed.

00.04 Federal business income tax credit for second generation biofuel

A. **GENERAL DESCRIPTION.** The Federal Internal Revenue Code provides a business income tax credit in amount of \$1.01 per gallon for the production and sale or use of second generation biofuel. *IRC §40; IRS. Notice 2009-6, Sec. 3(a), 2009-3 IRB; IRC §87; AM2010-004; AM2010-002; PLR 201042018; PLR 201125008; P.L. 114-113 (2015); P.L. 115-123 (2018); HB 1865 (2019); HB 133 (2020) H.R. 5378 (2022).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer producers and sellers or users of second generation biofuel which are suitable for use in an internal combustion engine.

1. Taxpayers who have a productive capacity for alcohol not in excess of 60 million gallons are eligible small ethanol producers.

For pass-through entities, the limit amount applies at the entity level and at the interest-holder level.

2. Taxpayers producing cellulosic biofuel must be registered with the IRS.

C. **QUALIFYING ACTIVITY.** Taxpayer must produce and sell or use second generation biofuel. Second generation biofuel is any alcohol, ether, ester, or hydrocarbon that is produced in the U.S. and derived from any lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis, including dedicated energy crops and trees, wood and wood residues, plants, grasses, agricultural residues, fibers, animal wastes and other waste materials, and municipal solid waste, and any cultivated algae, cyanobacteria, or lemna.

1. Qualifying production does not include casual off-farm production.

2. Qualifying fuel does not include fuel that is produced outside the United States for use as a fuel outside the United States.

3. Qualifying second generation biofuel must be both produced in the United States and used as fuel in the United States.

4. Qualifying fuel does not include fuels containing significant water, sediment, or ash content, such as black liquor.

5. Qualifying fuel does not include any liquid fuel derived from a pulp or paper manufacturing process.

D. **INCENTIVE AMOUNTS.** The tax credit amount is equal to the \$1.01 for each gallon of qualifying second generation biofuel production.

1. The tax credit amount may not double count second generation biofuel in an alcohol mixture or second generation biofuel as ethanol.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amount is \$1.5 million.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2024. Unused tax credit may be carried back 1 year and carried forward 20 years, or 3 years in the event of expiration of the tax credit.

G. **MISCELLANEOUS.**

1. The tax credit may be recaptured if the alcohol is separated from the mixture or the mixture is used other than as a fuel.

2. For qualifying alcohol fuels projects, the tax credit is allowable against the alternative minimum tax.

3. Taxpayer must include in gross income the amount of the tax credit determined with respect to Taxpayer for the taxable year.

00.05 Federal business income tax credit for biodiesel fuels

A. **GENERAL DESCRIPTION.** The Federal Internal Revenue Code provides a business income tax credit in the amounts of \$1.00 per gallon of biodiesel, biodiesel mixtures, renewable biomass diesel and renewable biomass diesel mixtures produced and sold or used and \$0.10 per gallon of small agri-biodiesel produced. *IRC §40A; Prop Reg §1.40A-1; IRC §87; PLR 201005017; CCA 200945035; AM 2010-002; CCA 201144024; P.L. 114-113 (2015); P.L. 115-123 (2018); HB 1865 (2019) H.R. 5378 (2022).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer producers, sellers, and users of biodiesel and biodiesel mixtures.

1. Small agri-biodiesel producer Taxpayers have a productive capacity for agri-biodiesel not in excess of 60 million gallons.

2. Any portion of the small agri-biodiesel producer credit may be apportioned pro rata among patrons of the organization on the basis of the quantity or value of business done with or for such patrons for the taxable year.

C. **QUALIFYING ACTIVITY.** Taxpayer must produce, sell and use biodiesel used to make biodiesel mixtures or produce agri-biodiesel. A qualifying biodiesel mixture is a mixture of biodiesel and diesel fuel which is sold by Taxpayer, in a trade or business, to any person for use as a fuel, or is used by Taxpayer as a fuel. Qualifying agri-biodiesel production is any agri-biodiesel which is produced by an eligible small agri-biodiesel producer which is sold to another person for use in the production of a qualifying biodiesel mixture, as a fuel in a trade or business, or to sell at retail to another person, placing such

agri-biodiesel in the fuel tank; or is used or sold by the eligible small agri-biodiesel producer for any purpose described above.

1. Qualifying biodiesel includes diesel fuel derived from biomass using a thermal depolymerization process which meets the registration requirements for fuels and fuel additives established by the EPA under section 211 of the Clean Air Act, and the requirements of the ASTM D975 or D396. Thermal depolymerization processes use heat and pressure, with or without the presence of catalysts.

(i). Qualifying biodiesel does not include any liquid to which a Section 40 credit may be determined.

2. Taxpayer users must obtain a certification from the producer or importer of the biodiesel which identifies the product produced and the percentage of biodiesel and agri-biodiesel in the product.

3. Qualifying production does not include casual off-farm production.

D. INCENTIVE AMOUNTS. The tax credit amount is the sum of three separate credits: (1) the biodiesel mixture credit; (2) the biodiesel credit; (3) the small agri-biodiesel producer credit.

1. The biodiesel mixture credit equals \$1.00 per gallon of biodiesel used by Taxpayer in the production of a qualifying biodiesel mixture.

2. The biodiesel credit equals \$1.00 per gallon of biodiesel which is not in a mixture with diesel fuel used by Taxpayer as a fuel in a trade or business or sold by Taxpayer at retail to a person and placed in the fuel tank of such person's vehicle.

3. The small agri-biodiesel producer credit equals \$0.10 per gallon of qualifying agri-biodiesel production.

E. INCENTIVE LIMITS. The maximum tax credit amount is the tax credit for 15 million gallons.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2024.

G. MISCELLANEOUS.

1. The tax credit may be recaptured if any person separates the biodiesel from a qualifying biodiesel mixture, or uses the mixture other than as a fuel.

2. The tax credit may be recaptured if any person mixes retail sold biodiesel or uses such biodiesel other than as a fuel.

3. Taxpayer must include in gross income the amount of tax credit determined with respect to Taxpayer for the taxable year.

00.06 Federal business income tax credit for new clean vehicles

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax credit in the amount of \$3,750 or \$7,500 for each new clean vehicle placed in service and the lesser of 30% of the cost or \$4,000 for a previously-owned clean vehicle. *IRC §30D and §25E; IRS Notice 2009-89; CONEX-150568-09; INFO 2010-0009; INFO 2010-0121; INFO 2011-0071; INFO 2011-0073; IRS Notice 2013-67; P.L. 114-113 (2015); IRS Notice 2016-51; P.L. 115-123 (2018); IRS Notice 2018-96; IR 2019-57, 3/26/2019; IRS Notice 2019-22; HB 1865 (2019); HB 133 (2020); PLR 202219006; PLR 202219007; PLR 202219008 H.R. 5378 (2022); Rev Proc 2022-42; Fact Sheet-2022-42; Notice 2023-1; Notice 2023-16; Fact Sheet 2023-4; Prop. Reg. §§1.30D-0 et seq.; Fact Sheet 2023-28.*

B. ELIGIBLE TAXPAYERS. Taxpayer owners of new or previously-owned clean vehicles, including the lessor of a vehicle subject to a lease. For new clean vehicles, the lesser of Taxpayer's modified adjusted gross income for the taxable year or the preceding taxable year cannot exceed \$300,000 (joint return), \$225,000 (head of household), and \$150,000 (individual). For previously-owned clean vehicles, the lesser of Taxpayer's modified adjusted gross income for the taxable year or the preceding taxable year cannot exceed \$150,000 (joint return), \$112,500 (head of household), and \$75,000 (individual).

1. On or before December 31, 2023, Taxpayer selling the property to a tax exempt purchaser may claim the tax credit. Taxpayer seller must clearly disclose to the tax exempt purchaser the amount of any tax credit allowable for that property.

2. Seller of the vehicle must furnish a report to Taxpayer and to the Secretary containing the name and taxpayer ID of Taxpayer, VIN of the vehicle, verification that original use of the vehicle commences with the Taxpayer, and the maximum tax credit allowable.
3. Taxpayer may elect to transfer the tax credit to a qualified dealer which sold the vehicle to Taxpayer on or before the date the vehicle is purchased.
4. The Secretary shall establish a program to make advance payments to any eligible entity in an amount equal to the cumulative amount of the tax credits with respect to any vehicles sold by such entity.

C. QUALIFYING ACTIVITY. Taxpayer must own a new or previously-owned clean vehicle predominately used in the U.S. A clean vehicle is a motor vehicle which draws propulsion using a traction battery with not less than 7 kilowatt hours of capacity and uses an offboard source of energy to recharge the battery. A new clean vehicle must have been made by a qualified manufacturer, have received the applicable certificate of conformity under the title II of the Clean Air Act and must have final assembly occur in North America. New clean vehicle includes new qualified fuel cell motor vehicle. New clean vehicle's manufacturer's suggested retail price cannot exceed \$80,000 for vans, sport utility vehicles, or pickup trucks, and \$50,000 for other vehicles. A previously-owned clean vehicle is a motor vehicle (A) the model year of which is at least 2 years earlier than the calendar year in which the Taxpayer acquires such vehicle, (B) the original use of which commences with a person other than the Taxpayer, (C) which is acquired by the Taxpayer in a qualified sale, and (D) which (i) generally meets the requirements Section 30D, or (ii) is a motor vehicle which (I) generally satisfies the requirements Section 30B, and (II) has a gross vehicle weight rating of less than 14,000 pounds.

1. A new clean vehicle does not include low-speed vehicles or electric golf carts.
2. Taxpayer may rely on domestic manufacturer's (or, in case of foreign manufacturer, its domestic distributor's) certification that both particular make, model, and model year of vehicle qualifies as 2- or 3-wheeled plug-in electric motor vehicle and the

amount of credit allowable with respect to the vehicle.

3. Final assembly is the process by which a manufacturer produces a new clean vehicle at, or through the use of, a plant, factory, or other place from which the vehicle is delivered to a dealer or importer with all component parts necessary for the mechanical operation of the vehicle included with the vehicle, whether or not the component parts are permanently installed in or on the vehicle.

4. Qualified manufacturer is any manufacturer within the meaning of the regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.) which enters into a written agreement with the Secretary under which such manufacturer agrees to make periodic written reports to the Secretary.

5. New qualified fuel cell motor vehicle is a motor vehicle which is propelled by power derived from 1 or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form and may or may not require reformation prior to use, and is which, in the case of a passenger automobile or light truck, has received a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle.

6. Critical minerals requirement is, with respect to the battery from which the electric motor of such vehicle draws electricity, the percentage of the value of the applicable critical minerals contained in such battery that were (i) extracted or processed (I) in the United States, or (II) in any country with which the United States has a free trade agreement in effect, or (ii) recycled in North America, is equal to or greater than the applicable percentage (as certified by the qualified manufacturer, in such form or manner as prescribed by the Secretary).

- (i). The applicable percentage is 40% for a vehicle placed in service in 2023, 50% for a vehicle placed in service in

2024, 60% for a vehicle placed in service in 2025, 70% for a vehicle placed in service in 2026, and 80% for a vehicle placed in service after 2026.

7. Battery components requirement is the percentage of the value of the components contained in such battery that were manufactured or assembled in North America is equal to or greater than the applicable percentage.

(i). The applicable percentage is 50% for a vehicle placed in service in 2023, 60% for a vehicle placed in service in 2024 or 2025, 70% for a vehicle placed in service in 2026, 80% for a vehicle placed in service in 2027, 90% for a vehicle placed in service in 2028, and 100% for a vehicle placed in service after 2028.

8. New clean vehicle does not include (A) any vehicle placed in service after December 31, 2024, with respect to which any of the applicable critical minerals contained in the battery of such vehicle were extracted, processed, or recycled by a foreign entity of concern (as defined in section 40207(a)(5) of the Infrastructure Investment and Jobs Act (42 U.S.C. 12 18741(a)(5))), or (B) any vehicle placed in service after December 31, 2023, with respect to which any of the components contained in the battery of such vehicle were manufactured or assembled by a foreign entity of concern (as so defined).

9. A qualified sale must be by a dealer, for a sales price which does not exceed \$25,000, and which is the first transfer to other than the person with whom the original use of the vehicle commenced. The qualified buyer must be an individual (with respect to whom no deduction is allowable with respect to another taxpayer under Section 151) who purchase such vehicle for use and not for resale and who has not been allowed a tax credit under Section 25E for any sale during the 3-year period ending on the date of the sale of such vehicle.

D. INCENTIVE AMOUNTS. The tax credit amount is \$3,750 for new clean vehicles meeting critical minerals requirements and \$3,750 for new clean vehicles meeting battery components

requirements. The tax credit amount is 30% of the cost for previously-owned clean vehicles.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$7,500 for new clean vehicles. The maximum tax credit amount is \$4,000 for previously-owned clean vehicles. The tax credit is only allowed once with respect to such vehicle.

1. The tax credit is not allowed with respect to the portion of the cost of any property taken into account under Section 179.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2032. The tax credit for individual taxpayers may not be carried forward to future years or back to past years.

1. The amendment regarding the transfer of tax credit apply to vehicles placed in service after December 31, 2023.

G. MISCELLANEOUS.

1. The tax basis of the qualifying property must be reduced by the amount of the tax credit allowed, determined without regard to the Section 30D(c) rules treating part of the tax credit as a general business credit and limiting the use of the remainder.

00.07 Federal business income tax credit for fuel cell motor vehicles

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a business income tax credit in amounts ranging from \$4,000 - \$40,000 for the purchase of fuel cell motor vehicles. *IRC §30B; Notice 2010-42; INFO 2011-0008; P.L. 114-113 (2015); P.L. 115-123 (2018); HB 1865 (2019); HB 133 (2020).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of fuel cell motor vehicles.

1. Taxpayer selling the property to a tax exempt purchaser may claim the tax credit. Taxpayer seller must clearly disclose to the tax exempt purchaser the amount of any tax credit allowable for that property.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase a fuel cell motor vehicle for original use or lease in the United States. A qualifying fuel cell motor vehicle is a motor vehicle that is propelled by power from one or more cells that convert chemical energy directly into electricity by combining oxygen with hydrogen fuel that is stored on board the vehicle in any form and which may or may not require reformation before use. Qualifying fuel cell motor vehicle must have received a certificate that it meets or exceeds the applicable Tier II emission level established in regulations prescribed by the US Environmental Protection Agency for that make and model year vehicle.

D. **INCENTIVE AMOUNTS.** The tax credit amount ranges from \$4,000 - \$40,000 for vehicles with a gross vehicle weight ratings (GVWR) ranging from 8,500 - 26,000 pounds. The qualifying fuel cell motor vehicle credit for passenger car or light truck is further increased to reflect fuel efficiency in amounts ranging from \$1,000 - \$4,000 for vehicles achieving 150% - 300% of the 2002 model year city fuel economy (2002 MYCFE).

E. **INCENTIVE LIMITS.** The tax credit is not allowed for the portion of the cost of any property expensed under Section 179.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2021. Unused tax credit for businesses may be carried back 1 year and carried forward 20 years. Unused tax credit for individuals may not be carried back or forward.

G. **MISCELLANEOUS.**

1. The tax basis of the qualifying property must be reduced by the amount of the tax credit allowed, determined without regard to the Section 30B(g) rules treating part of the tax credit as a general business credit and limiting the use of the remainder.
2. Taxpayer may elect not to take the tax credit.

A. **GENERAL DESCRIPTION.** The Federal Internal Revenue Code provides an income tax credit in the amount of \$500 - \$5,000 for each qualifying new energy efficient home which is constructed by an eligible contractor and acquired by a person from the eligible contractor for use as a residence. *IRC §45L; Notice 2008-35, 2008-12 IRB; P.L. 114-113 (2015); P.L. 115-123 (2018); HB 1865 (2019); HB 133 (2020) H.R. 5378 (2022); Notice 2022-48; Notice 2022-61; Prop. Treas. Reg §1.45L-3.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer contractors constructing qualifying new energy efficient homes. An eligible contractor is the person that constructed a qualifying new energy efficient home.

1. Taxpayer must own and have basis in the qualifying energy efficient home during its construction. A Taxpayer that hires a third party contractor is the eligible contractor and the third party contractor is not an eligible contractor.

C. **QUALIFYING ACTIVITY.** Taxpayer must construct a qualifying new energy efficient home that is acquired by a person for use as a residence. A qualifying new energy efficient home is a dwelling unit which: (i) is a zero net energy ready home, or (ii) is eligible to participate in the Energy Star Residential New Construction Program or the Energy Star Manufactured New Homes program or the Energy Star Multifamily New Construction Program, that meet the applicable requirements.

1. A zero energy ready home is a dwelling unit certified as a zero energy ready home under the zero energy ready home program of the Department of Energy as in effect on January 1, 2023 (or any successor program determined by the Secretary).
2. A single family Energy Star home is a dwelling unit that meets the Energy Star Single-Family New Homes National Program Requirements 3.1 (and 3.2 after December 31, 2024) and the applicable local requirements (as in effect on the later of January 1, 2023, or January 1 of two calendar years prior to the date the dwelling unit was acquired).

00.08 Federal business income tax credit for new energy efficient homes

- (i). A single family Energy Star home includes dwelling units that meet the most recent Energy Star Manufactured Home National program requirements as in effect on the latter of January 1, 2023, or January 1 of two calendar years prior to the date such dwelling unit is acquired.

3. A multifamily Energy Star home is a dwelling unit that meets the most recent Energy Star Multifamily New Construction National Program Requirements (as in effect on either January 1, 2023, or January 1 of three calendar years prior to the date the dwelling was acquired, whichever is later) and the applicable local requirements (as in effect on the latter of January 1, 2023, or January 1 of three calendar years prior to the date the dwelling unit was acquired).

D. INCENTIVE AMOUNTS. The tax credit amount is \$2,500 for a single family Energy Star home, \$5,000 for a single family zero energy ready home, \$500 for a multifamily unit Energy Star home, and \$1,000 for a multifamily unit zero energy ready home. The tax credit amount for multifamily units is increased 500% for units that satisfies the prevailing wage requirements.

1. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction of a unit, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

- (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.
- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
- (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those

individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.

- (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
- (v). The facility location includes secondary sites where a significant portion of the construction, alteration or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
- (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
- (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
- (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
- (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
- (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2032.

G. MISCELLANEOUS.

1. Eligible basis of the Low-Income Housing Tax Credit is not reduced for any new energy efficient home tax credit determined.

00.09 Federal income tax deduction for energy efficient commercial buildings

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax deduction in the amount of 100% of the cost of energy efficient commercial building property or energy efficient building retrofit property placed in service. *IRC §179D; Notice 2006-52, 2006-1 CB 1175; Notice 2008-40, 2008-14 IRB 725; AM2010-007; Rev. Proc. 2011-14; INFO 2011-0072; CCA 201451028; P.L. 114-113 (2015); P.L. 115-123 (2018); AM 2018-005; U.S. v. QUEBE, 123 AFTR 2d 2019-543 (DC OH), 01/25/2019; HB 1865 (2019); IRS Practice Unit IRC 179D Energy Efficient Commercial Buildings Deduction (revised June 19, 2020); HB 133 (2020); Large Business and International Active Campaigns, (March 12, 2021); H.R. 5378 (2022); Notice 2022-61; Announcement 2023-1, 2023-01, 12/23/2022; Michael Johnson, et al. v. Commissioner, 160 T.C. No. 2; Notice 2022-48; News Release 2023-142; Prop. Treas. Reg §1.179D-3.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer owners placing energy efficient commercial building property or energy efficient building retrofit property in service.

1. Taxpayer may be the person primarily responsible for designing the property if qualifying property is installed on or in property owned by a specified tax-exempt entity. The deduction may be allocated by the owner of the property to the Taxpayer designer.

(i). Specified tax-exempt entity is: (i) the United States, any State or political subdivision thereof, any possession of the United States, or any agency or

instrumentality of any of the foregoing, (ii) an Indian tribal government (as defined in section 30D(g)(9)) or Alaska Native Corporation (as defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602(m)), and (iii) any organization exempt from income tax.

(ii). Taxpayer designer is a person that creates the technical specifications for installation of energy efficient commercial building property. A designer may include an architect, engineer, contractor, environmental consultant or energy services provider who creates the technical specifications for a new building or an addition to an existing building that incorporates energy efficient commercial building property.

(iii). Taxpayer designer is not a person that merely installs, repairs, or maintains the property.

(iv). The owner of the building shall determine which Taxpayer designer is primarily responsible and allocate the full deduction to that Taxpayer designer, or at the owner's discretion, allocate the deduction among several Taxpayer designers.

2. Taxpayer partners or shareholders of the designer must reduce the adjusted bases in their partnership interests or S corporation stock by the amount of the Section 179D deduction. Sections 704(d) and 1366(d) limit the benefit of the Section 179D deduction to the partners or shareholders' adjusted bases in their partnership interests or S corporation stock.

C. QUALIFYING ACTIVITY. Taxpayer must place in service energy efficient commercial building property or energy efficient building retrofit property. Qualifying property is depreciable property installed on or in a building located in the U.S. which is installed as part of the interior lighting systems, the heating, cooling, ventilation, and hot water systems, or the building envelope and is certified as being installed as part of a plan designed to reduce the total annual energy and power costs (or for energy efficient building retrofit property, the energy use intensity) of the building

by 25% or more in comparison to a reference building that meets the minimum requirements of Reference Standard 90.1. Energy efficient building retrofit property means property (A) with respect to which depreciation (or amortization in lieu of depreciation) is allowable, (B) which is installed on or in any qualified building, (C) which is installed as part of (i) the interior lighting systems, (ii) the heating, cooling, ventilation, and hot water systems, or (iii) the building envelope, and (D) which is certified by a qualified professional. A qualified building is any building which (A) is located in the United States, and (B) was originally placed in service not less than 5 years before the establishment of the qualified retrofit plan with respect to such building.

1. Qualifying buildings must be wholly or partially enclosed within exterior walls, or within exterior and party walls, and a roof, affording shelter to persons, animals, or property.

2. Qualifying building does not include a single-family house, a multi-family structure of three stories or fewer above grade, a manufactured house (mobile home), or a manufactured house (modular).

3. Qualifying computer software must prepare energy or power cost savings calculation. Treasury shall promulgate regulations which describe in detail methods for calculating and verifying energy and power consumption and cost with respect to any property, based on the provisions of the most recent California Nonresidential Alternative Calculation Method Approval Manual which has been affirmed by the Secretary of Treasury, after consultation with the Secretary of Energy, for purposes of this section not later than the date that is 2 years before the date that construction of such property begins.

4. Qualifying individuals must inspect and test the qualifying buildings to ensure compliance of the buildings with energy-savings plans and targets. Qualifying individuals must certify and provide an explanation to the owner of the building of the energy efficiency features of the building and its projected annual energy costs.

5. Reference Standard 90.1 is: (i) Reference Standard 90.1-2007 for projects placed in services on or before December 31, 2026, and

(ii) Reference Standard 90.1-2019 for projects placed in services after December 31, 2026, published by the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America.

6. Energy use intensity is the annualized, measured site energy use intensity measured in British thermal units.

7. A qualified retrofit plan is a written plan prepared by a qualified professional which specifies modifications to a building which, in the aggregate, are expected to reduce such building's energy use intensity by 25 percent or more in comparison to the baseline energy use intensity of such building.

(i). A qualified retrofit plan must: (i) certify the energy use intensity on a date no more than 1 year before the installation of the qualifying property; (ii) certify the status of qualifying property installed pursuant to the qualified retrofit plan; and (iii) certify the energy use intensity on date that is more than 1 year after the property is placed in service.

(ii). A qualified professional means an individual who is a licensed architect or a licensed engineer and meets such other requirements as the Secretary may provide.

8. Qualifying final certification is, with respect to any qualified retrofit plan, the certification that the energy use intensity certified in such certification is not more than 75 percent of the baseline energy use intensity of the building, as certified on a date that is no more than 1 year prior to the installation of the qualifying property, as adjusted to take into account weather.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the cost of energy efficient commercial building property or energy efficient building retrofit property.

E. INCENTIVE LIMITS. The maximum tax deduction amount is the product of \$0.50 increased by \$0.02 for each percentage point by which the total annual energy and power costs for the building are certified to be reduced by a percentage greater than 25 percent (but not above

\$1.00) and the square footage of the qualifying building, less than the amount of deductions for the 3 taxable years (or 4 taxable years for a transferred tax deduction) immediately preceding such taxable year. The maximum tax deduction amounts are adjusted for inflation. The maximum tax deduction per percentage point amounts is increased by 500% for property: (i) installed prior to the date that is 60 days after the Secretary publishes guidance with respect to the prevailing wage and apprenticeship requirements, or (ii) that satisfies the prevailing wage and apprenticeship requirements.

1. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the installation of any property, shall be paid wages at rates not less than the prevailing rates in the locality in which such property is located as determined by the Secretary of Labor.

- (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.
- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
- (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.
- (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
- (v). The facility location includes secondary sites where a significant portion of the construction, alternation or repair of the facility occurs,

provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.

- (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
- (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
- (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
- (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
- (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

2. Apprenticeship requirements require that not less than: (i) 10%, for qualified property which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified property which begin construction on or before December 31, 2023, and (iii) 15%, for qualified property which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.

- (i). Each taxpayer, contractor or subcontractor who employs 4 or more

- individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
- (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
 - (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
 - (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
 - (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the

Labor Hours Requirement and the Participation Requirement.

- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

F. INCENTIVE TIMEFRAME.

1. The 2022 Amendments apply after December 31, 2022.

G. MISCELLANEOUS.

1. The basis of the qualifying property must be reduced by the amount of the tax deduction allowed or allocated.
2. For a real estate investment trust, any amount deductible is allowed in the year in which the property giving rise to such deduction is placed in service (or, in the case of energy efficient building retrofit property, the year in which the qualifying final certification is made).

00.10 Federal income tax deduction for certain energy property

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax accelerated cost recovery over 5 years for energy property. *IRC §168(e)(3); Memo 20113901F; PLR 201221002 H.R. 5378 (2022).*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer owners placing in service energy property subject to cost recovery.

C. QUALIFYING ACTIVITY. Taxpayer must place in service energy property. Energy property is any property which is: (1) equipment which uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a structure, or to provide solar process heat, excepting property used to generate energy for the purposes of heating a swimming pool; (2) equipment which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight but only with respect to periods ending before January 1, 2017; (3) equipment used to produce, distribute, or use energy derived from a geothermal deposit,

but only, in the case of electricity generated by geothermal power, up to (but not including) the electrical transmission stage; (4) qualifying fuel cell property or qualifying microturbine property; (5) combined heat and power system property, (6) qualifying small wind energy property; (7) equipment which uses the ground or ground water as a thermal energy source to heat a structure or as a thermal energy sink to cool a structure; (8) qualified facility under Section 45Y, (9) qualified property under Section 48E, or (10) energy storage technology under Section 48E.

1. Energy property must be qualifying small power production facility within the meaning of section 16 U.S.C. 3(17)(C), as in effect on September 1, 1986.

D. INCENTIVE AMOUNTS. The tax deduction amount is the amount MACRS specifically provides for Section 45Y, Section 48 and Section 48E energy property in the 5-year class. The depreciation method for property in the 5-year class is usually 200% declining balance, with a switch to straight-line to maximize the deduction (the 200% declining balance method). The 5-year class consists of property with an ADR midpoint of more than 4 years and less than 10 years.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deduction is effective for facilities and property placed in service after December 31, 2024.

G. MISCELLANEOUS.

00.11 Federal income tax credit for advanced energy property

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a business income tax credit in the amount of 6 or 30% of the qualifying investment in qualifying advanced energy manufacturing projects. IRC §48C; Notice 2009-72, 2009-36 IRB; CCA 201052005; Notice 2013-12; *H.R. 5378 (2022)*; *Notice 2022-61*; *Notice 2023-18*; *Notice 2023-44*; *Prop. Treas. Regs §§1.6417-0 through 1.6417-6*; *Prop. Treas. Regs*

§§1.6418-0 through 1.6417-5; *Prop. Treas. Reg §1.48C-3*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers investing in qualifying advanced energy manufacturing projects.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

- (i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

- (ii). Income, including income from certain grants and forgivable loans, that is exempt from taxation under subtitle A and used to purchase, construct, reconstruct, erect, or otherwise acquire an applicable credit property described in sections 30C, 45W, 48, 48C, or 48E (investment-related credit property) are included in basis for purposes of computing the applicable credit amount determined with respect to the applicable credit property.

2. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.

- (i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.

- (ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S

corporation level. No election by any partner or shareholder shall be allowed.

- (iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.
- (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.
- (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must invest in a qualifying advanced energy manufacturing project. A qualifying advanced energy project is: (i) a project which re-equips, expands, or establishes an industrial or manufacturing facility for the production or recycling of: (1) property designed to be used to produce energy from the sun, water, wind, geothermal deposits or other renewable resources, (2) fuel cells, microturbines, or an energy storage systems and components, (3) grid modernization equipment and components, (4) property designed to capture, remove, use or sequester carbon dioxide emissions, (5) equipment designed to refine, electrolyze, or blend any fuel, chemical or project which is renewable or low-carbon and low-emission, (6) property designed to produce energy conversation technologies (including residential, commercial, and industrial applications), (7) light-, medium-, or heavy-duty electric or fuel cell vehicles, technologies and associated charging or refueling infrastructure, (8) hybrid vehicles with a gross vehicle weight rating of not less than 14,000 pounds and associated technologies, components or materials, or (9) other advanced energy property designed to reduce greenhouse gas emissions as may be determined by IRS; (ii) which re-equips an industrial or manufacturing facility with equipment designed to reduce greenhouse gas emissions by at least 20 percent through the installation of (I) low- or zero-carbon process heat systems, (II) carbon capture, transport, utilization and storage systems, (III) energy efficiency and reduction in waste from industrial processes, or (IV) any other industrial technology designed to reduce greenhouse gas emissions, as determined

by the Secretary, or (iii) which re-equips, expands, or establishes an industrial facility for the processing, refining, or recycling of critical materials.

1. A qualifying advanced energy project must be certified by IRS, in consultation with the US Department of Energy (DOE), through a qualifying advanced energy project application process to consider and award certifications to Taxpayer. In determining which qualifying advanced energy projects to certify, IRS will take into consideration only those projects where there is a reasonable expectation of commercial viability. IRS will also take into consideration which projects: (i) will provide the greatest domestic job creation (both direct and indirect) during the tax credit period, (ii) will provide the greatest net impact in avoiding or reducing air pollutants or anthropogenic emissions of greenhouse gases, (iii) have the greatest potential for technological innovation and commercial deployment, (iv) have the lowest levelized cost of generated or stored energy, or of measured reduction in energy consumption or greenhouse gas emission (based on costs of the full supply chain), and (v) have the shortest project time from certification to completion. A qualifying advanced energy project which has been allocated a tax credit, but subsequently undergoes a significant change in plans, may be denied the tax credit.
2. DOE will implement the selection criteria and evaluate whether a project merits a DOE recommendation based on the following four technical review criteria: (1) Commercial viability, (2) Greenhouse gas emissions impacts, (3) Strengthening U.S. supply chains and domestic manufacturing for a net-zero economy, and (4) Workforce and community engagement.
3. A critical materials is: (A) any non-fuel mineral, element, substance, or material that the Secretary of Energy determines (i) has a high risk of a supply chain

disruption; and (ii) serves an essential function in 1 or more energy technologies, including technologies that produce, transmit, store, and conserve energy; or (B) any mineral, element, substance, or material designated as critical by the Secretary of Energy.

4. A qualifying advanced energy project may include any portion of an investment in other projects as eligible for a credit under Section 48C.
5. A qualifying advanced energy project does not include any qualifying investment for which a credit is allowed under Sections 48, 48A, 48B, 48E, 48Q, or 48F.
6. A qualifying advanced energy project does not include any portion of a project for the production of any property which is used in the refining or blending of any transportation fuel (other than renewable fuels).

D. INCENTIVE AMOUNTS. The tax credit amount is 6% of the qualifying investment. The tax credit amount is 30% of the qualifying investment if the project satisfies the prevailing wage and apprenticeship requirements. The qualifying investment amount is the basis of eligible property placed in service during the taxable year. Eligible property is property (a) that is necessary for the production of specified energy property, (b) that is tangible personal property, or other tangible property, if such property is used as an integral part of the facility, and (c) with respect to which depreciation (or amortization) is allowable.

1. Eligible property does not include a building or its structural components.
2. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the re-equipping, expansion or establishment of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.
 - (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual

would be characterized as an employee or an independent contractor for other Federal tax purposes.

- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
- (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.
- (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
- (v). The facility location includes secondary sites where a significant portion of the construction, alteration or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
- (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
- (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
- (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all

- pay periods or (ii) not greater than 2.5% of the required wage.
- (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
 - (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
3. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
 - (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
 - (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
 - (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
 - (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
 - (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
- E. INCENTIVE LIMITS.
1. Qualified investments in energy communities must receive at least \$4 billion in allocation.
- (i). An energy community is (i) a brownfield site; (ii) a metropolitan statistical area or non-metropolitan statistical area which, as determined by the Secretary, (I) has or had 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, and (II) has an unemployment rate at or above the national average unemployment rate for the previous year; (iii) a census tract (I) in which after December 31, 1999, a coal mine has closed, or after

December 31, 2009, a coal-fired electric generating unit has been retired, or (II) which is directly adjoining to any census tract described in subclause (I).

F. **INCENTIVE TIMEFRAME.** Taxpayer must apply for the tax credit pursuant to application procedures to be established by the Secretary. Taxpayer will have 2 years from the date IRS accepts the application during which to provide to IRS evidence that the requirements of the certification have been met. Taxpayer receiving a certification has 2 years from the date of issuance of the certification to place the project in service. The tax credit will take effect on January 1, 2023.

G. **MISCELLANEOUS.**

1. The basis of qualifying property must be reduced by the amount of tax credit received.
2. Rules similar to the rules relating to the treatment of qualifying progress expenditures under former Section 46(c) and (d) apply.

00.12 Federal income tax credit for clean electricity production

A. **GENERAL DESCRIPTION.** The Federal Internal Revenue Code provides an income tax credit in the amount of \$0.003 to \$0.015 per kWh for electricity produced in a qualified facility and sold to an unrelated person. *IRC §45Y; H.R. 5378 (2022); Notice 2022-61; Notice 2023-29; Notice 2023-38; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6418-5; Notice 2023-45; Notice 2023-47; Prop. Treas. Reg §1.45Y-3.*

B. **ELIGIBLE TAXPAYERS.** Taxpayer producers electricity generated at a qualified facility.

1. In the case of a qualified facility in which more than 1 person has an ownership interest, except to the extent provided in regulations prescribed by the Secretary, production from the facility shall be allocated among such persons in proportion to their respective

ownership interests in the gross sales from such facility.

2. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

(i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

3. The elective payment is phased out for construction of facilities starting in 2024, 10% reduction, 2025, 15% reduction, and after 2025, 100% reduction.

(i). The elective payment phase out does not apply to qualified facilities that: (i) meet the domestic content requirement; or (ii) a maximum net output of less than 1 megawatt (as measured in alternating current).

4. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.

(i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.

(ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.

(iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.

- (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.
- (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must produce electricity at a qualified facility and sell the electricity to an unrelated person. A qualified facility is a facility owned by the Taxpayer which is used for the generation of electricity, which is placed in service after December 31, 2024, and for which the greenhouse gas emissions rate is not greater than zero.

2. Greenhouse gas emissions rate is the amount of greenhouse gases emitted into the atmosphere by a facility in the production of electricity, expressed as grams of CO₂e per kWh. The Secretary shall annually publish a table that sets forth the greenhouse gas emissions rates for types or categories of facilities.

- (i). In the case of a facility which produces electricity through combustion or gasification, the greenhouse gas emissions rate for such facility shall be equal to the net rate of greenhouse gases emitted into the atmosphere by such facility (taking into account lifecycle greenhouse gas emissions, as described in section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H))) in the production of electricity, expressed as grams of CO₂e per kWh.

3. Taxpayer may sell, consume or store the electricity in the case of a qualified facility equipped with a metering device which is owned and operated by an unrelated person.

4. A qualified facility includes facilities placed in service before December 31, 2024, but only to the extent of increased production due to new units or additions of capacity placed in service after December 31, 2024.

5. Electricity production must be within the United States or a possession of the United States.

6. Electricity produced and amount of greenhouse gases emitted at a qualified facility shall include any production in the form of useful thermal energy by any combined heat and power system property within such facility.

7. Persons shall be treated as related to each other if such persons would be treated as a single employer under the regulations prescribed under Section 52(b). In the case of a corporation which is a member of an affiliated group of corporations filing a consolidated return, such corporation shall be treated as selling electricity to an unrelated person if such electricity is sold to such a person by another member of such group.

D. INCENTIVE AMOUNTS. The base tax credit amount is \$0.003 (2022) per kWh. The tax credit amount for a qualified facility: (i) with a maximum net output of less than 1 megawatt (as measured in alternating current), (ii) the construction of which begins prior to the date that is 60 days after the Secretary publishes guidance with respect to the prevailing wage and apprenticeship requirements, or (iii) which satisfies the prevailing wage and apprenticeship requirements is \$0.015 (2022) per kWh. The tax credit amount for qualified facility meeting domestic content requirements is increased by 10%. The tax credit amount for qualified facility located in an energy community is increased by 10%. The tax credit amount is adjusted for inflation.

1. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction, or, within the tax credit period, the alteration or repair of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

- (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an

- employee or an independent contractor for other Federal tax purposes.
- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
 - (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.
 - (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
 - (v). The facility location includes secondary sites where a significant portion of the construction, alternation or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
 - (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
 - (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
 - (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
 - (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
 - (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
2. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
 - (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors,

- or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
- (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
- (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
- (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
3. Domestic content requirements require Taxpayer to certify that any steel, iron, or manufactured product which is a component of any such facility (upon completion of construction) was produced in the United States.
- (i). Manufactured products shall be deemed to have been produced in the United States if not less than 40% (20% for offshore wind facilities) for construction beginning before 2025, 45% (27.5% for offshore wind facilities) for construction beginning before 2026, 50% (35% for offshore wind facilities) for construction beginning before 2027, 55% for construction beginning on or after 2027 (45% for offshore wind facilities beginning construction before 2028 and 55% for offshore wind facilities beginning construction on or after 2028) of the total costs of all such manufactured products of such facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.
- (ii). A manufactured product component is considered to be of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.
4. An energy community is (i) a brownfield site; (ii) a metropolitan statistical area or non-metropolitan statistical area which, as determined by the Secretary, (I) has or had 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, and (II) has an unemployment rate at or above the national average unemployment rate for the previous year; (iii) a census tract (I) in which after December 31, 1999, a coal mine has closed, or after December 31, 2009, a coal-fired electric generating unit has been retired, or (II) which is directly adjoining to any census tract described in subclause (I).
- (i). A brownfield site is defined in 42 U.S.C. § 9601(39). A safe harbor provides that a site will be considered a brownfield site if (1) The site was previously assessed through federal, state, territory, or federally recognized Indian tribal brownfield resources as meeting the definition of a brownfield site under 42 U.S.C. § 9601(39)(A); (2) An ASTM E1903 Phase II Environmental Site Assessment (Phase II Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process of ASTM International and such Phase II Assessment confirms the presence on the site of a hazardous substance as defined under 42 U.S.C. § 9601(14), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33); or (3) For projects with a nameplate capacity of

not greater than 5MW (AC), an ASTM E1527 Phase I Environmental Site Assessment (Phase I Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process of ASTM International and the Phase I Assessment identifies the presence or potential presence of a hazardous substance as defined under 42 U.S.C. § 9601(14) (hazardous substance), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33) (pollutant or contaminant).

- (ii). A project is considered located in or placed in service within an energy community if 50% or more of the project's nameplate capacity (or square footage if a project does not have a nameplate capacity) is in an area that qualifies as an energy community.

E. INCENTIVE LIMITS.

1. For tax-exempt bond projects, the tax credit amount is reduced by the lesser of 15% and a fraction which is: (i) the tax-exempt financing, divided by (ii) aggregate amount of additions to the capital account.

F. INCENTIVE TIMEFRAME. The tax credit applies to facilities placed in service after December 31, 2024. The tax credit period is 10 years. The tax credit amount is phased out 25% a year starting the later of (A) the calendar year in which the Secretary determines that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2022; or (B) 2032.

G. MISCELLANEOUS.

1. The tax credit may not be claimed for a facility receiving tax credits under Sections 45, 45J, 45Q, 45U, 48, 48A or 48E.

00.13 Federal income tax credit for clean electricity investment

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax credit in the amount of 6-30% of the qualified investment in a qualified facility or energy storage technology. *IRC §48E; H.R. 5378 (2022); Notice 2022-61; Notice 2023-29; Notice 2023-38; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6417-5; Notice 2023-45; Notice 2023-47; Treas. Reg §1.48(e)-1; Rev. Proc. 2023-27; Prop. Treas. Reg §1.48E-3.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of qualified facilities or energy storage technologies.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

(i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

(ii). Income, including income from certain grants and forgivable loans, that is exempt from taxation under subtitle A and used to purchase, construct, reconstruct, erect, or otherwise acquire an applicable credit property described in sections 30C, 45W, 48, 48C, or 48E (investment-related credit property) are included in basis for purposes of computing the applicable credit amount determined with respect to the applicable credit property.

2. The elective payment is phased out for construction of facilities starting in 2024, 10% reduction, 2025, 15% reduction, and after 2025, 100% reduction.

(i). The elective payment phase out does not apply to qualified facilities that: (i) meet the domestic content requirement; or (ii) a maximum net output of less than 1 megawatt (as measured in alternating current).

3. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.

(i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.

(ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.

(iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.

(iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.

(v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must place in service qualified property and qualified interconnection property with respect to a qualified facility. A qualified facility is a facility which is used for the generation of electricity, which is placed in service after December 31, 2024, and for which the anticipated greenhouse gas emissions rate is not greater than zero. Qualifying energy storage technology property is (i) property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) which receives, stores, and delivers

energy for conversion to electricity (or, in the case of hydrogen, which stores energy), and has a nameplate capacity of not less than 5 kilowatt hours, and (ii) thermal energy storage property.

1. Qualified property is property which is tangible personal property, or other tangible property (not including a building or its structural components), but only if such property is used as an integral part of the qualified facility, with respect to which depreciation (or amortization in lieu of depreciation) is allowable, and the construction, reconstruction, or erection of which is completed by the Taxpayer, or which is acquired by the Taxpayer if the original use of such property commences with the Taxpayer..

2. Greenhouse gas emissions rate is the amount of greenhouse gases emitted into the atmosphere by a facility in the production of electricity, expressed as grams of CO₂e per KWh. The Secretary shall annually publish a table that sets forth the greenhouse gas emissions rates for types or categories of facilities.

3. In the case of a facility which produces electricity through combustion or gasification, the greenhouse gas emissions rate for such facility shall be equal to the net rate of greenhouse gases emitted into the atmosphere by such facility (taking into account lifecycle greenhouse gas emissions, as described in section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H))) in the production of electricity, expressed as grams of CO₂e per KWh.

4. Qualified interconnection property must be in connection with the installation of qualifying energy property which has a maximum net output of not greater than 5 megawatts (as measured in alternating current), to provide for the transmission or distribution of the electricity produced or stored by such property.

5. A qualified facility includes facilities placed in service before December 31, 2024, but only to the extent of increased production due to new units or additions of capacity placed in service after December 31, 2024.

6. If the Secretary determines that the greenhouse gas emissions rate for a qualified

facility is greater than 10 grams of CO₂e per kWh, any property for which a tax credit was allowed under this section with respect to such facility shall cease to be investment credit property in the taxable year in which the determination is made.

D. INCENTIVE AMOUNTS. The base tax credit amount is 6% of the cost basis of qualifying property with respect to qualifying facilities and energy storage technologies. The base 6% tax credit amount is increased to 30% for qualified facilities (or energy storage technology): (i) with a maximum net output (or capacity) of less than 1 megawatt (as measured in alternating current), (ii) the construction of which begins prior to the date that is 60 days after the Secretary publishes guidance with respect to the prevailing wage and apprenticeship requirements, or (iii) satisfies the prevailing wage and apprenticeship requirements. The tax credit amount for a qualified facility or energy storage technology meeting domestic content requirements is increased by 10% and by 2% for energy projects that do not qualify for the increase to 30%. The tax credit amount for a qualified facility or energy storage technology located in an energy community is increased by 10% and by 2% for qualified facilities or energy storage technologies that do not qualify for the increase to 30%. The tax credit amount for qualifying environmental justice solar and wind facilities is increased by up to 10% for projects located in a low-income community or Indian land and 20% for projects that are part of a qualified low-income residential building project or qualified low-income economic benefit project.

1. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction, or, within the tax credit period, the alteration or repair of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

(i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an

employee or an independent contractor for other Federal tax purposes.

- (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
- (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.
- (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
- (v). The facility location includes secondary sites where a significant portion of the construction, alteration or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
- (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
- (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
- (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all

- pay periods or (ii) not greater than 2.5% of the required wage.
- (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
 - (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
2. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
 - (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
 - (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
 - (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
 - (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
 - (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
3. Domestic content requirements require Taxpayer to certify that any steel, iron, or manufactured product which is a component of any such facility (upon completion of construction) was produced in the United States.
- (i). Manufactured products shall be deemed to have been produced in the United States if not less than 40% (20% for offshore wind facilities) for construction beginning before 2025, 45% (27.5% for offshore wind facilities) for construction beginning before 2026, 50% (35% for offshore wind facilities) for construction beginning before 2027, 55% for construction beginning on or after 2027 (45% for offshore wind facilities beginning construction before 2028 and 55% for offshore wind facilities beginning construction on or after

- 2028) of the total costs of all such manufactured products of such facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.
- (ii). A manufactured product component is considered to be of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.
4. An energy community is (i) a brownfield site; (ii) a metropolitan statistical area or non-metropolitan statistical area which, as determined by the Secretary, (I) has or had 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, and (II) has an unemployment rate at or above the national average unemployment rate for the previous year; (iii) a census tract (I) in which after December 31, 1999, a coal mine has closed, or after December 31, 2009, a coal-fired electric generating unit has been retired, or (II) which is directly adjoining to any census tract described in subclause (I).
- (i). A brownfield site is defined in 42 U.S.C. § 9601(39). A safe harbor provides that a site will be considered a brownfield site if (1) The site was previously assessed through federal, state, territory, or federally recognized Indian tribal brownfield resources as meeting the definition of a brownfield site under 42 U.S.C. § 9601(39)(A); (2) An ASTM E1903 Phase II Environmental Site Assessment (Phase II Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process of ASTM International and such Phase II Assessment confirms the presence on the site of a hazardous substance as defined under 42 U.S.C. § 9601(14), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33); or (3) For projects with a nameplate capacity of not greater than 5MW (AC), an ASTM E1527 Phase I Environmental Site Assessment (Phase I Assessment) has been completed with respect to the site in accordance with the most current applicable version of the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process of ASTM International and the Phase I Assessment identifies the presence or potential presence of a hazardous substance as defined under 42 U.S.C. § 9601(14) (hazardous substance), or a pollutant or contaminant as defined under 42 U.S.C. § 9601(33) (pollutant or contaminant).
 - (ii). A project is considered located in or placed in service within an energy community if 50% or more of the project's nameplate capacity (or square footage if a project does not have a nameplate capacity) is in an area that qualifies as an energy community.
5. Qualifying environmental justice facilities are qualified facilities with respect to which the Secretary makes an allocation of environmental justice capacity limitation which: (i) that do not produce electricity through combustion or gasification (ii) has a maximum net output of less than 5 megawatts (as measured in alternating current), and (iii) (I) is located in a low-income community (as defined in Section 45D(e)) or on Indian land (as defined in section 2601(2) of the Energy Policy Act of 1992 (25 U.S.C. 3501(2))), or (II) is part of a qualified low-income residential building project or a qualified low-income economic benefit project.
- (i). A low-income community is any population census tract if the poverty rate for such tract is at least 20 percent, or in the case of a tract not located within a metropolitan area, the median family income for such tract does not exceed 80 percent of statewide median family income, or in the case of a tract located within a metropolitan area, the median family income for such tract does not exceed

- 80 percent of the greater of statewide median family income or the metropolitan area median family income (as referenced in the New Markets Tax Credit statute).
- (ii). A qualified low-income residential building project a residential rental building which participates in a covered housing program (as defined in section 41411(a) of the Violence Against Women Act of 1994 (34 U.S.C.20 12491(a)(3), which includes the low income housing tax credit program under Section 42), a housing assistance program administered by the Department of Agriculture under title V of the Housing Act of 1949, a housing program administered by a tribally designated housing entity (as defined in section 4(22) of the Native American Housing Assistance and Self-Determination Act of 1996 (25 U.S.C. 4103(22))) or such other affordable housing programs as the Secretary may provide, and (ii) the financial benefits of the electricity produced by such facility are allocated equitably among the occupants of the dwelling units of such building.
 - (iii). A qualified low-income economic benefit project is at least 50 percent of the financial benefits of the electricity produced by such facility are provided to households with income of (i) less than 200 percent of the poverty line (as defined in Section 36B(d)(3)(A)) applicable to a family of the size involved, or (ii) less than 80 percent of area median gross income (as determined under Section 142(d)(2)(B)).
 - (iv). Financial benefit includes acquiring electricity at a below-market rate.
 - (v). Multiple facilities that are operated as a part of a single project are aggregated and treated as a single facility for determining.
 - (vi). Energy storage technology is installed in connection with other eligible property if it is charged no less

than an annual average of 50% by the other eligible property.

- (vii). Taxpayer owner applies for and receives the allocation of capacity limitation. Taxpayer may transfer the allocation with approval from the IRS.
- (viii). Additional selection criteria based on ownership and geography will be prioritized. Ownership criteria include ownership by a tribal enterprise, an Alaskan native corporation, a renewable energy cooperative, a qualified renewable energy company, or a qualified tax-exempt entity. Geography criteria include location in a persistent poverty county (PPC) or Climate and Economic Justice Screening Tool (CEJST) census tract.

E. INCENTIVE LIMITS.

1. For tax-exempt bond projects, the tax credit amount is reduced by the lesser of 15% and a fraction which is: (i) the tax-exempt financing, divided by (ii) aggregate amount of additions to the capital account.
2. For qualifying environmental justice facilities the allocation limits are 1.8 gigawatts of direct current capacity for each year beginning 2025 through the applicable year, and zero thereafter.
 - (i). The applicable year is the later of (A) the calendar year in which the Secretary determines that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2022; or (B) 2032.

F. INCENTIVE TIMEFRAME. The tax credit applies to facilities placed in service after December 31, 2024. The tax credit amount is phased out 25% a year starting the later of (A) the calendar year in which the Secretary determines the calendar year in which the Secretary determines that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less

than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2022; or (B) 2032.

1. Qualified environmental justice facilities must be placed in service within 4 years of the allocation.
2. Qualified environmental justice facilities amendments take effect after December 31, 2022.
3. For environmental justice capacity limitation, there will be a 30-day period during which time applications will initially be accepted for each category. All applications submitted within the 30-day period will be treated as submitted on the same date and at the same time.
4. Following the 30-day period, DOE will generally accept applications on a rolling basis and will review applications and provide recommendations to the IRS in the order applications are received until the IRS allocates all Capacity Limitation in a program year. The IRS will award the applicants in the order that it receives recommendations from DOE.

G. MISCELLANEOUS.

1. The tax credit may not be claimed for a facility receiving tax credits under Sections 45, 45J, 45Q, 45U, 45Y, 48, or 48A.
2. The tax credit basis shall not include that portion of the basis of any property which is attributable to qualified rehabilitation expenditures under Section 47.
3. Rules similar to the rules relating to the treatment of qualifying progress expenditures under former Section 46(c) and (d) apply.

00.14 Federal personal income tax credit for energy efficient home improvement

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a personal income tax credit in the amount of 30% of the costs for qualifying energy efficiency improvements, residential energy property expenditures or home energy audits. *IRC §25C; IRS Notice 2006-26, 2006-1 CB 622; IRS Notice 2009-53, 2009-25 IRB 1095; INFO 2009-0231; INFO 2009-0239; INFO*

2009-0243; INFO 2010-0098; INFO 2010-0105; CONEX-120518-10; CONEX-131502-10; CONEX-145283-10; CONEX-140778-10; INFO 2011-0001; INFO 2011-0006; INFO 2011-0015; INFO 2011-0016; INFO 2011-0048; Announcement 2011-73; PLR 201130003; IRS Notice 2013-70; P.L. 114-113 (2015); TC Memo 2017-70; P.L. 115-123 (2018); HB 1865 (2019); HB 133 (2020); H.R. 5378 (2022); Notice 2022-48; FS-2022-40; Notice 2023-59.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals installing energy efficiency improvements and residential energy property, or home energy audits in the Taxpayer's principal residence.

1. The tax credit may be allocated among Taxpayers in jointly occupied units, Taxpayer tenant-owners in a cooperative or Taxpayer members of a condominium.
2. Taxpayer may not be a cooperative.

C. QUALIFYING ACTIVITY. Taxpayer must install energy efficient property in Taxpayer's residence or perform home energy audit for Taxpayer's principal residence. Qualifying energy efficient property is energy efficiency improvements to the building envelope and residential energy property expenditures. Qualifying energy efficient property must be reasonably expected to remain in use for 5 years. Qualifying energy efficiency improvements to the building envelope is any energy efficient building envelope component that meets the prescriptive criteria for that component established by the most recent International Energy Conservation Code standard in effect as of the beginning of the calendar year which is 2 years prior to the calendar year in which such component is placed in service, and in the case of an exterior window or a skylight Energy Star's most efficient certification requirements, and in the case of an exterior door applicable Energy Star requirements. Qualified energy property is any of the following: (A) any of the following which meet or exceed the highest efficiency tier (not including any advanced tier) established by the Consortium for Energy Efficiency which is in effect as of the beginning of the calendar year in which the property is placed in service: (i) an electric or natural gas heat pump water heater, (ii) an electric or natural gas heat pump, (iii) a central air

conditioner, (iv) a natural gas, propane, or oil water heater, (v) a natural gas, propane, or oil furnace or hot water boiler; (B) a biomass stove or boiler which (i) uses the burning of biomass fuel to heat a dwelling unit located in the United States and used as a residence by the Taxpayer, or to heat water for use in such a dwelling unit, and (ii) has a thermal efficiency rating of at least 75 percent (measured by the higher heating value of the fuel); (C) any oil furnace or hot water boiler which (i) is placed in service after December 31, 2022, and before January 1, 2027, and (I) meets or exceeds 2021 Energy Star efficiency criteria, and (II) is rated by the manufacturer for use with fuel blends at least 20 percent of the volume of which consists of an eligible fuel, or (ii) is placed in service after December 31, 2026, and (I) achieves an annual fuel utilization efficiency rate of not less than 90, (II) is rated by the manufacturer for use with fuel blends at least 50 percent of the volume of which consists of an eligible fuel; (D) any improvement to, or replacement of, a panelboard, sub-panelboard, branch circuits, or feeders which (i) is installed in a manner consistent with the National Electric Code, (ii) has a load capacity of not less than 200 amps, (iii) is installed in conjunction with (I) any qualified energy efficiency improvements, or (II) any qualified energy property described in (A) through (C) for which a tax credit is allowed for expenditures with respect to such property, and (iv) enables the installation and use of any property described in subclause (I) or (II) of clause (iii). A home energy audit is an inspection and written report with respect to a dwelling unit located in the United States and owned or used by the Taxpayer as Taxpayer's principal residence which: (1) identifies the most significant and cost-effective energy efficiency improvements with respect to such dwelling unit, including an estimate of the energy and cost savings with respect to each such improvement, and (2) is conducted and prepared by a home energy auditor that meets the certification or other requirements specified by the Secretary in regulations or other guidance.

1. Building envelope component is: (1) any insulation material or system, including an air sealing material or system, that is specifically and primarily designed to reduce the dwelling unit's heat loss or gain when installed in or on

the dwelling unit; (2) exterior windows (including skylights); (3) exterior doors; and (4) any metal roof or asphalt roof installed on a dwelling unit, but only if the roof has appropriate pigmented coatings or cooling granules that are specifically and primarily designed to reduce the dwelling unit's heat gain.

2. Building envelope component does not include components with a principal purpose is to serve any function unrelated to the reduction of heat loss or gain or if production costs attributable to features other than those that reduce heat loss or gain exceed production costs attributable to features that reduce heat loss or gain.

3. Building envelope component does not include exterior windows, skylights, and doors with a U factor greater than 0.30 and a SHGC greater than 0.30.

4. Building envelope components do not include property that provides structural support or a finished surface, such as drywall or siding, including vinyl siding.

5. Building envelope components or energy property may be certified by its manufacturer if installed in a manner that is consistent with the manufacturer's certification. The certification statement may be provided by including a written copy of the statement with the packaging of the component or property, in printable form on the manufacturer's website, or in any other manner that will permit Taxpayer to retain the certification statement for tax recordkeeping purposes.

6. Taxpayer may not rely on an Energy Star label for certifying qualifying property.

7. Qualifying expenditures are incurred for an existing home or for an addition or renovation to an existing home and not for a newly constructed home.

8. Eligible fuel is Section 40A biodiesel and renewable diesel and Section 40 second generation biofuel.

9. Home energy audit is an inspection and written report (audit) with respect to a dwelling unit located in the United States and owned or used by the taxpayer as the taxpayer's principal residence (within the meaning of § 121) that meets each of the following requirements: (1) the audit identifies the most significant and cost-effective energy efficiency

improvements with respect to such dwelling unit, including an estimate of the energy and cost savings with respect to each such improvement, (2) the inspection is conducted either by a qualified home energy auditor or under the supervision of a qualified home energy auditor, (3) the written report is prepared and signed by a qualified home energy auditor, and (4) the audit is consistent with the most recent Department of Energy (DOE)-led and industry-validated Jobs Task Analysis.

10. Qualified home energy auditor is an individual who is a home energy auditor that is certified by a qualified certification program at the time of the home energy audit.

11. Qualified certification program must be certified by the DOE.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the cost of energy efficiency improvements and residential energy property, or home energy audits during the taxable year.

1. Cost of qualifying building envelope components includes costs incurred to purchase the components, and not for amounts paid or incurred for onsite preparation, assembly or installation.

2. Cost of qualifying energy property includes the cost of the property and labor costs properly allocable to the onsite preparation, assembly, or original installation of the property.

3. Cost of qualifying energy property includes only the portion of the cost for nonbusiness purpose if less than 80% of the use of an item is for nonbusiness purposes.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is generally \$1,200. The maximum annual credit amount is: \$600 for qualified energy property, \$600 for windows and skylights, \$250 for any exterior door, \$500 aggregate for all exterior doors, \$2,000 for an electric or natural gas heat pump water heater, \$2,000 for an electric or natural gas heat pump. The maximum tax credit for home energy audit is \$150.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2032.

1. Cost of qualifying energy property is made when the original installation is completed. Cost of qualifying energy property in connection with the construction or reconstruction of a structure is treated as made when Taxpayer's original use of the constructed or reconstructed structure begins.

2. 2022 Amendments apply to property placed in service after December 31, 2022.

3. After December 31, 2023, home energy audits are required to be conducted by a qualified home energy auditor.

G. MISCELLANEOUS.

1. The basis increase of the property which would result from the cost of qualifying energy property is reduced by the amount of the tax credit.

2. The tax credit can be claimed against the AMT.

3. For qualifying property placed in service after December 31, 2024, such qualifying property must be produced by a qualified manufacturer and the Taxpayer must include the qualified product identification number on the reporting tax return.

00.15 Federal personal income tax credit for residential clean energy

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides a personal income tax credit in the amount of 30% the cost of residential energy efficient property, including qualifying solar electric property, qualifying solar water heating property, qualifying fuel cell property, qualifying small wind energy property, and qualifying geothermal heat pump property. *IRC §25D; IRS Notice 2009-41; INFO 2009-0240; CONEX – 152472-09; INFO 2010-0036; PLR 201035003; INFO 2010-0085; INFO 2010-0111; INFO 2010-0133; INFO 2010-0232; INFO 2011-0010; INFO 2011-0019; INFO 2011-0031; INFO 2011-0059; PLR 201130003; IRS Notice 2013-70; PLR 201536017; P.L. 114-113 (2015); PLR 201809003; P.L. 115-123 (2018); HB 133 (2020) H.R. 5378 (2022); Notice 2022-48; FS-2022-40.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals installing residential energy efficient property.

C. **QUALIFYING ACTIVITY.** Taxpayer must install residential energy efficient property. Residential energy efficient property includes solar electric, solar hot water, fuel cell, small wind energy, geothermal heat pump and battery storage. Qualifying solar electric property uses solar energy to generate electricity for use in a dwelling unit. Qualifying solar water heating property heats water for use in a dwelling unit, if at least half of the energy used by the property for that purpose is derived from the sun. Qualifying fuel cell property is an integrated system comprised of a fuel cell stack assembly and associated balance of plant components that converts a fuel into electricity using electrochemical means, has an electricity-only generation efficiency of greater than 30%, and generates at least 0.5 kw of electricity. Qualifying small wind energy property is property that uses a wind turbine to generate electricity. Qualifying geothermal heat pump property is property that uses the ground or ground water as a thermal energy source to heat the dwelling unit or as a thermal energy sink to cool the dwelling unit, and meets the Energy Star program requirements in effect when the expenditure is made. Qualified batter storage technology is battery storage technology installed in connection with a dwelling unit located in the United States and used as a residence by the Taxpayer with a capacity of not less than 3 kilowatt hours.

1. Qualifying solar property includes solar panel or other property installed as a roof (or portion of a roof) even if it is a structural component of the structure on which it is installed.
2. Qualifying solar water heating property must be certified for performance by the Solar Rating Certification Corporation or a comparable entity endorsed by the government of the state in which the property is installed.
3. Qualifying solar water heating property does not include expenditures properly allocable to a swimming pool, hot tub, or any other energy-storage medium that has a function other than energy storage.
4. Qualifying solar property includes off-site solar panel or other property which provides electricity exclusively to the utility grid, which in turn provides net metering credits to

Taxpayer's residence for an amount of electricity not in excess of the amount that will be consumed at Taxpayer's residence.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 30% of the qualifying property costs. The tax credit amount is reduced to: (i) 26% for an expenditure made after December 31, 2032; and (ii) 22% for an expenditure made after December 31, 2033.

1. Qualifying property costs include labor costs properly allocable to the on-site preparation, assembly, or original installation of qualifying property, and expenditures for piping or wiring to interconnect qualifying property to the dwelling unit.
2. Qualifying property costs include expenditures that are made from subsidized energy financing. Subsidized energy financing is financing provided under a federal, state, or local program, a principal purpose of which is to provide subsidized financing for projects designed to conserve or produce energy.
3. Qualifying property costs include only the portion of the cost for nonbusiness purpose if less than 80% of the use of an item is for nonbusiness purposes.
4. Qualifying property costs does not include an expenditure financed with an energy conservation subsidy that a public utility provides to a customer to buy or install an energy conservation measure, which is excluded from income.
5. Qualifying property costs include amount of any Renewable Energy Credits payments from public utilities.
6. Qualifying property costs include cost of installing energy storage property to be integrated into qualifying solar photovoltaic system property.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amount is: \$500 for each 0.5 kilowatt of capacity for qualifying fuel cell property.

1. For qualifying fuel cell property in a dwelling unit that is jointly occupied and used during any calendar year as a residence by two or more individuals, the maximum tax credit amount for all the individuals is \$1,667

for each 0.5 kw of capacity of qualifying fuel cell property.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2034.

1. Qualifying property costs are made when the original installation is completed.
2. Qualifying property costs related to the construction or reconstruction of a structure are made when Taxpayer begins using the structure.
3. Amendments relating to battery storage apply to expenditures made after December 31, 2022.

G. **MISCELLANEOUS.**

1. Taxpayer who qualifies for both the energy efficiency home improvement credit in Section 25C and the tax credit may claim both credits.
2. The tax credit can be claimed against the AMT.
3. The basis increase of the property which would result from the qualifying property costs is reduced by the amount of the tax credit.
4. The tax credit is reduced by the amount of nontaxable energy conservation subsidy received under Section 136. Because state-provided incentives are includable in gross income, Taxpayer is not required to reduce the amount of his or her qualified expenditures qualifying for the tax credit.
5. If Taxpayer uses more than 20% of qualified property for business purposes, the Taxpayer can only take the portion of the expenditures that is properly allocable to use for nonbusiness purposes. Taxpayer may be eligible for the Section 48 business credit for the cost of qualifying property allocable to Taxpayer's use of the system in a trade or business, or for the production of income.

00.16 Federal income tax credit for sustainable aviation fuel

A. **GENERAL DESCRIPTION.** The Federal Internal Revenue Code provides an income tax credit for the sale or use of sustainable aviation fuel mixture in the amount of \$1.25 per gallon plus an

applicable supplementary amount. *IRC §40B; H.R. 5378 (2022); Notice 2023-06.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer purchasers of sustainable aviation fuel mixture.

1. Taxpayer producer or importers must be registered with the IRS.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase a qualified mixture of sustainable aviation fuel. A qualified mixture is a mixture of sustainable aviation fuel and kerosene if (1) such mixture is produced by the Taxpayer in the United States, (2) such mixture is used by the Taxpayer (or sold by the Taxpayer for use) in an aircraft, (3) such sale or use is in the ordinary course of a trade or business of the Taxpayer, and (4) the transfer of such mixture to the fuel tank of such aircraft occurs in the United States. Sustainable aviation fuel is liquid fuel, the portion of which is not kerosene, which (A) meets the requirements of (i) ASTM International Standard D7566, or (ii) the Fischer Tropsch provisions of ASTM International Standard D1655, Annex AI, (B) is not derived from coprocessing an applicable material (or materials derived from an applicable material) with a feedstock which is not biomass, (C) is not derived from palm fatty acid distillates or petroleum, and (D) has been certified as having a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent.

1. Applicable material is (i) monoglycerides, diglycerides, and triglycerides, (ii) free fatty acids, and (iii) fatty acid esters.
2. Biomass is any organic material other than oil and natural gas (or any product thereof), and coal (including lignite) or any product thereof.
3. Lifecycle greenhouse gas emissions reduction percentage is the percentage reduction in lifecycle greenhouse gas emissions achieved by such fuel as compared with petroleum-based jet fuel, as defined in accordance with (1) the most recent Carbon Offsetting and Reduction Scheme for International Aviation which has been adopted by the International Civil Aviation Organization with the agreement of the United States, or (2) any similar methodology which satisfies the

criteria under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)).

4. Producers and importers of sustainable aviation fuel must be registered and certified by the Secretary.

D. INCENTIVE AMOUNTS. The tax credit amount is \$1.25 per gallon of sustainable aviation fuel in a qualified mixture plus the applicable supplementary amount. The applicable supplementary amount is an amount equal to \$0.01 for each percentage point (up to \$0.50) by which the lifecycle greenhouse gas emissions reduction percentage with respect to such fuel exceeds 50 percent.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2024.

G. MISCELLANEOUS.

00.17 Federal income tax credit for production of clean hydrogen

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax credit in the amount of \$0.12 - \$0.60 per kilogram for the production of clean hydrogen. *IRC §45V; H.R. 5378 (2022); Notice 2022-61; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6417-5; Prop. Treas. Reg §1.45V-3.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producing qualified clean hydrogen.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

(i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal

government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

(ii). A Taxpayer which is not an applicable entity may elect to be treated as an applicable entity. An Electing Taxpayer may make an election under Section 6417.

(iii). With respect to any facility or property held directly by a partnership or S corporation, any election shall be made by such partnership or S corporation.

2. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.

(i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.

(ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.

(iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.

(iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.

(v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must produce qualified clean hydrogen at a qualified clean hydrogen production facility. Qualified clean hydrogen means hydrogen which is produced through a process that results in a lifecycle greenhouse gas emissions rate of not greater than 4 kilograms of CO₂e per kilogram of hydrogen.

Qualified clean hydrogen must be produced (I) in the United States or a possession of the United States, (II) in the ordinary course of a trade or business of the Taxpayer, and (III) for sale or use. The production and sale or use of such hydrogen must be verified by an unrelated party. Qualified clean hydrogen production facility means a facility owned by the Taxpayer, which produces qualified clean hydrogen.

1. Lifecycle greenhouse gas emissions are the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator of the Environmental Protection Agency, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative warming potential.

(i). Lifecycle greenhouse gas emissions shall only include emissions through the point of production (well-to-gate), as determined under the most recent Greenhouse gases, Regulated Emissions, and Energy use in Transportation model (commonly referred to as the GREET model) developed by Argonne National Laboratory, or a successor model (as determined by the Secretary).

2. Qualified clean hydrogen production facilities include facilities originally placed in service on or before December 31, 2022 which are modified to produce qualified clean hydrogen.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.12 per kilogram for clean hydrogen with a lifecycle greenhouse emission rate of less than 4 kilograms of CO₂e per kilogram of hydrogen, \$0.15 per kilogram for clean hydrogen with a lifecycle greenhouse emission rate of less than 2.5 kilograms of CO₂e per kilogram of hydrogen, \$0.20 per kilogram for clean hydrogen with a lifecycle greenhouse emission rate of less than 1.5 kilograms of CO₂e per kilogram of hydrogen, and

\$0.60 per kilogram for clean hydrogen with a lifecycle greenhouse emission rate of less than 0.45 kilograms of CO₂e per kilogram of hydrogen. The tax credit amounts are adjusted for inflation. For qualified clean hydrogen produced in qualified clean hydrogen production facilities which is (i) a facility the construction of which begins prior to the date that is 60 days after the Secretary publishes guidance with respect to the prevailing wage and apprenticeship requirements, or (ii) a facility which satisfies the prevailing wage and apprenticeship requirements, the tax credit amount is increased by 500%.

1. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction, or, within the tax credit period, the alteration or repair of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

(i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.

(ii). Taxpayer may request a supplemental wage determination from the Department of Labor.

(iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.

(iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.

(v). The facility location includes secondary sites where a significant portion of the construction, alteration

- or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
- (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
 - (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
 - (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
 - (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
 - (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
2. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
 - (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.
 - (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
 - (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
 - (viii). A penalty of \$50 (\$500 for intentional disregard)

multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.

- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

E. INCENTIVE LIMITS.

1. For tax-exempt bond projects, the tax credit amount is reduced by the lesser of 15% and a fraction which is: (i) the tax-exempt financing, divided by (ii) aggregate amount of additions to the capital account.

F. INCENTIVE TIMEFRAME. The tax credit is available for a 10-year period beginning on the placed-in-service date of the qualifying facility. The construction of a qualified clean hydrogen production facility must begin on or before December 31, 2032.

G. MISCELLANEOUS.

00.18 Federal income tax credit for qualified commercial clean vehicles

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax credit in the amount of 15-30% of the cost of qualified commercial clean vehicles. *IRC §45W; H.R. 5378 (2022); Fact Sheet 2022-42; Notice 2023-09; Prop. Treas. Regs §§1.6417-0 through 1.6417-6.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of qualified commercial clean vehicles.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

- (i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley

Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

- (ii). Income, including income from certain grants and forgivable loans, that is exempt from taxation under subtitle A and used to purchase, construct, reconstruct, erect, or otherwise acquire an applicable credit property described in sections 30C, 45W, 48, 48C, or 48E (investment-related credit property) are included in basis for purposes of computing the applicable credit amount determined with respect to the applicable credit property.

C. QUALIFYING ACTIVITY. Taxpayer must own qualified commercial clean vehicles. A qualified commercial clean vehicle is any vehicle which (1) is made by a qualified manufacturer and is acquired for use or lease by the taxpayer and not for resale, (2) either (A) is treated as a motor vehicle for purposes of title II of the Clean Air Act and is manufactured primarily for use on public streets, roads, and highways, or (B) is mobile machinery, (3) either (A) is propelled to a significant extent by an electric motor which draws electricity from a battery which has a capacity of not less than 15 kilowatt hours (or, in the case of a vehicle which has a gross vehicle weight rating of less than 14,000 pounds, 7 kilowatt hours) and is capable of being recharged from an external source of electricity, or (B) is a motor vehicle which is propelled by power derived from 1 or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form and may or may not require reformation prior to use and which, in the case of a passenger automobile or light truck, has received a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle, and (4) is of a character subject to the allowance for depreciation.

1. Qualified manufacturer is any manufacturer within the meaning of the regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.) which enters into a written agreement with the Secretary under which such manufacturer agrees to make periodic written reports to the Secretary.

2. Mobile machinery is any vehicle which consists of a chassis to which there has been permanently mounted (by welding, bolting, riveting, or other means) machinery or equipment to perform a construction, manufacturing, processing, farming, mining, drilling, timbering, or similar operation if the operation of the machinery or equipment is unrelated to transportation on or off the public highways, which has been specially designed to serve only as a mobile carriage and mount (and a power source, where applicable) for the particular machinery or equipment involved, whether or not such machinery or equipment is in operation, and which, by reason of such special design, could not, without substantial structural modification, be used as a component of a vehicle designed to perform a function of transporting any load other than that particular machinery or equipment or similar machinery or equipment requiring such a specially designed chassis.

D. INCENTIVE AMOUNTS. The tax credit amount is 15% of the basis of the qualified clean commercial vehicle and 30% of the basis of the qualified clean commercial vehicle in the case of a vehicle not powered by a gasoline or diesel internal combustion engine.

1. The Safe Harbor amount for the incremental cost for all street vehicles (other than compact car PHEVs) is \$7,500.

2. Taxpayer may use the incremental cost published in the DOE Analysis to calculate the tax credit amount for compact car PHEVs placed in service during calendar year 2023.

3. Taxpayer use the incremental cost published in the DOE Analysis for the appropriate class of street vehicle to calculate the tax credit amount for vehicles placed in service during calendar year 2023.

E. INCENTIVE LIMITS. The maximum tax credit amount is the incremental cost of the vehicle. The incremental cost is an amount equal to the excess of the purchase price for such vehicle over such price of a vehicle which is powered solely by a gasoline or diesel internal combustion engine and which is comparable in size and use. The maximum tax credit amount is \$7,500 for a vehicle which has a gross vehicle weight rating of less than 14,000 pounds, and \$40,000 for all other vehicles.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2032.

G. MISCELLANEOUS.

1. No tax credit is allowed with respect to any vehicle for which a tax credit was allowed under Section 30D.

2. The tax basis of the qualifying property must be reduced by the amount of the tax credit allowed, determined without regard to the Section 30D(c) rules treating part of the tax credit as a general business credit and limiting the use of the remainder.

00.19 Federal income tax credit for advanced manufacturing production

A. GENERAL DESCRIPTION. The Federal Internal Revenue Code provides an income tax credit in various amounts for advanced manufacturing eligible components produced and sold. *IRC §45X; H.R. 5378 (2022); Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6417-5.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers of advanced manufacturing eligible components.

1. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

- (i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.
 - (ii). A Taxpayer which is not an applicable entity may elect to be treated as an applicable entity. An Electing Taxpayer may make an election under Section 6417.
 - (iii). With respect to any facility or property held directly by a partnership or S corporation, any election shall be made by such partnership or S corporation.
2. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.
- (i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.
 - (ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S corporation level. No election by any partner or shareholder shall be allowed.
 - (iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.
 - (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.
 - (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must produce and sell advanced manufacturing eligible

components. Advanced manufacturing eligible components are thin film photovoltaic cells or crystalline photovoltaic cells, a photovoltaic wafers, solar grade polysilicon, polymeric backsheets, solar modules, wind energy components, offshore wind vessel, torque tubes, structural fasteners, inverters, electrode active materials, battery cells, battery modules, and any applicable critical minerals.

1. The production and sale must be in a trade or business of the Taxpayer.
2. The sale must be to an unrelated person.
 - (i). Taxpayer may elect that a sale be deemed to have been made to an unrelated person.
3. The production of the components must be within the United States or a possession of the United States.
4. Central inverter is an inverter which is suitable for large utility-scale systems and has a capacity which is greater than 1,000 kilowatts AC.
5. Commercial inverter is an inverter which (i) is suitable for commercial or utility-scale applications, (ii) has a rated output of 208, 480, 600, or 800 volt three-phase power, and (iii) has a capacity which is not less than 20 kilowatts and not greater than 125 kilowatts AC.
6. Distributed wind inverter is an inverter which (I) is used in a residential or non-residential system which utilizes 1 or more certified distributed wind energy systems, and (II) has a rated output of not greater than 150 kilowatts.
7. Certified distributed wind energy system is a wind energy system which is certified by an accredited certification agency to meet Standard 9.1-2009 of the American Wind Energy Association.
8. Microinverter is an inverter which (i) is suitable to connect with one solar module, (ii) has a rated output of (I) 120 or 240 volt single-phase power, or (II) 208 or 480 volt three-phase power, and (iii) has a capacity which is not greater than 650 watts AC.
9. Residential inverter is an inverter which (i) is suitable for a residence, (ii) has a rated output of 120 or 240 volt single-phase power, and (iii) has a capacity which is not greater than 20 kilowatts AC.

10. Utility inverter is an inverter which (i) is suitable for commercial or utility-scale systems, (ii) has a rated output of not less than 600 volt three-phase power, and (iii) has a capacity which is greater than 125 kilowatts and not greater than 1000 kilowatts AC.

11. Photovoltaic cell is the smallest semiconductor element of a solar module which performs the immediate conversion of light into electricity.

12. Photovoltaic wafer is a thin slice, sheet, or layer of semiconductor material of at least 240 square centimeters (I) produced by a single manufacturer either (aa) directly from molten or evaporated solar grade polysilicon or deposition of solar grade thin film semiconductor photon absorber layer, or (bb) through formation of an ingot from molten polysilicon and subsequent slicing, and (II) which comprises the substrate or absorber layer of one or more photovoltaic cells.

13. Polymeric backsheet is a sheet on the back of a solar module which acts as an electric insulator and protects the inner components of such module from the surrounding environment.

14. Solar grade polysilicon is silicon which is (I) suitable for use in photovoltaic manufacturing, and (II) purified to a minimum purity of 99.999999 percent silicon by mass.

15. Solar module is the connection and lamination of photovoltaic cells into an environmentally protected final assembly which is (I) suitable to generate electricity when exposed to sunlight, and (II) ready for installation without an additional manufacturing process.

16. Solar tracker is a mechanical system that moves solar modules according to the position of the sun and to increase energy output.

17. Torque tube is a structural steel support element (including longitudinal purlins) which (aa) is part of a solar tracker, (bb) is of any cross-sectional shape, (cc) may be assembled from individually manufactured segments, (dd) spans longitudinally between foundation posts, (ee) supports solar panels and is connected to a mounting attachment for solar panels (with or without separate module interface rails), and (ff) is rotated by means of a drive system.

18. Structural fastener is a component which is used (aa) to connect the mechanical and drive system components of a solar tracker to the foundation of such solar tracker, (bb) to connect torque tubes to drive assemblies, or (cc) to connect segments of torque tubes to one another.

19. Blade is an airfoil-shaped blade which is responsible for converting wind energy to low-speed rotational energy.

20. Offshore wind foundation is the component (including transition piece) which secures an offshore wind tower and any above-water turbine components to the seafloor using (I) fixed platforms, such as offshore wind monopiles, jackets, or gravity-based foundations, or (II) floating platforms and associated mooring systems.

21. Nacelle is the assembly of the drivetrain and other tower-top components of a wind turbine (with the exception of the blades and the hub) within their cover housing.

22. Related offshore wind vessel is any vessel which is purpose-built or retrofitted for purposes of the development, transport, installation, operation, or maintenance of offshore wind energy components.

23. Tower is a tubular or lattice structure which supports the nacelle and rotor of a wind turbine.

24. Electrode active material is cathode materials, anode materials, anode foils, and electrochemically active materials, including solvents, additives, and electrolyte salts that contribute to the electrochemical processes necessary for energy storage.

25. Battery cell is an electrochemical cell (I) comprised of 1 or more positive electrodes and 1 or more negative electrodes, (II) with an energy density of not less than 100 watt-hours per liter, and (III) capable of storing at least 12 watt-hours of energy.

26. Battery module is a module (I)(aa) in the case of a module using battery cells, with 2 or more battery cells which are configured electrically, in series or parallel, to create voltage or current, as appropriate, to a specified end use, or (bb) with no battery cells, and (II) with an aggregate capacity of not less than 7 kilowatt-hours (or, in the case of a module for a hydrogen fuel cell vehicle, not less than 1 10 kilowatt-hour).

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$0.04 per DC watt for thin film photovoltaic cells or crystalline photovoltaic cells, \$12 per square meter of photovoltaic wafers, \$3 per kilogram of solar grade polysilicon, \$0.40 per square meter of polymeric backsheets, \$0.07 per DC watt for solar modules, various costs per watt of the completed wind turbine for wind energy components, 10% of sales price of offshore wind vessel, \$0.87 per kilogram for torque tubes, \$2.28 per kilogram of structural fasteners, various costs per AC watt for inverters, 10% of the costs of producing electrode active materials, \$35 per KWH for battery cells, \$10 (or \$45 in the case of a batter module which does not use battery cells) per KWH for battery modules, and 10% of the costs of producing any applicable critical minerals.

1. The applicable amount for wind energy components is \$0.02 for blades, \$0.05 for nacelles, \$0.03 for towers, \$0.02 for fixed platform offshore wind foundations and \$0.04 for floating platform offshore wind foundations.

2. The applicable amount for inverters is \$0.025 for central inverters, \$0.015 for utility inverters, \$0.02 for commercial inverters, \$0.065 for residential inverters and \$0.11 for microinverters or distributed wind inverters.

3. The tax credit amounts, except for applicable critical minerals will be phased out 25% a year starting in 2030 and will be completely phased out after 2032.

E. **INCENTIVE LIMITS.** The capacity determined with respect to a battery cell or battery module shall not exceed a capacity-to-power ratio of 100:1.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2032.

G. **MISCELLANEOUS.**

00.20 Federal income tax credit for clean fuel production

A. **GENERAL DESCRIPTION.** The Federal Internal Revenue Code provides an income tax credit in the amount of \$0.20 - \$1.75 per gallon multiplied by an emissions factor for clean transportation fuel produced and sold. *IRC §45Z; H.R. 5378 (2022);*

Notice 2022-61; Prop. Treas. Regs §§1.6417-0 through 1.6417-6; Prop. Treas. Regs §§1.6418-0 through 1.6418-5; Prop. Treas. Reg §1.45Z-3.

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer producers and sellers of clean transportation fuel.

1. Taxpayer must be registered as a producer of clean fuel under Section 4101 and in the case of sustainable aviation fuel, must be certified by an unrelated party in the form and manner as the Secretary shall prescribe.

2. In the case of a facility in which more than 1 person has an ownership interest, except to the extent provided in regulations prescribed by the Secretary, production from the facility shall be allocated among such persons in proportion to their respective ownership interests in the gross sales from such facility.

3. In the case of an applicable entity making an election under Section 6417 with respect to the tax credit, such entity shall be treated as making a payment against income tax for the taxable year with respect to which such tax credit was determined equal to the amount of tax credit. A pre-filing registration is required to make an election.

(i). An applicable entity is any organization exempt from income tax, any State or political subdivision thereof, the Tennessee Valley Authority, an Indian tribal government, any Alaska Native Corporation, or any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas.

4. A Taxpayer which is not an applicable entity may elect under Section 6418 to transfer all of the tax credit to an unrelated taxpayer. A pre-filing registration is required to make an election.

(i). Consideration for such transfer must be paid in cash and shall not be includable in gross income of the transferor Taxpayer and shall not be deductible by transferee Taxpayer.

(ii). In the case of any facility or property held directly by a partnership or S corporation, the election to transfer is made at the partnership or S

corporation level. No election by any partner or shareholder shall be allowed.

- (iii). Taxpayer may make multiple transfer elections to transfer one or more specified tax credit portion(s) to multiple transferee taxpayers.
- (iv). The transferee taxpayer is responsible for any amount of tax increase under section 50(a) upon the occurrence of a recapture event.
- (v). Allocation of the tax credit by a transferee partnership to its partners does not violate the no-second-transfer rule.

C. QUALIFYING ACTIVITY. Taxpayer must produce and sell clean transportation fuel at a qualified facility. Clean transportation fuel is a fuel which (i) is suitable for use as a fuel in a highway vehicle or aircraft, (ii) has an emissions rate which is not greater than 50 kilograms of CO₂e per mMBTU, and (iii) is not derived from coprocessing an applicable material (or materials derived from an applicable material) with a feedstock which is not biomass. Qualified facility is a facility used for the production of transportation fuels. Biomass is any organic material other than oil and natural gas (or any product thereof), and coal (including lignite) or any product thereof.

1. Clean transportation fuel must be produced in the United States or any possession of the United States.
2. Clean transportation fuel must be sold by the Taxpayer to an unrelated person (A) for use by such person in the production of a fuel mixture, (B) for use by such person in a trade or business, or (C) who sells such fuel at retail to another person and places such fuel in the fuel tank of such other person.
 - (i). Persons shall be treated as related to each other if such persons would be treated as a single employer under the regulations prescribed under Section 52(b). In the case of a corporation which is a member of an affiliated group of corporations filing a consolidated return, such corporation shall be treated as selling fuel to an unrelated person if such fuel is sold to

such a person by another member of such group.

3. A qualified facility does not include any facility which is allowed a credit under Section 45V, Section 48 with respect to any specified clean hydrogen production facility, or Section 45Q.
4. Applicable material is (I) monoglycerides, diglycerides, and triglycerides, (II) free fatty acids, and (III) fatty acid esters.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.20 per gallon multiplied by an emissions factor. The tax credit amount is \$1.00 per gallon multiplied by an emissions factor for clean fuel produced at a qualified facility which meets the prevailing wage and apprenticeship requirements. The tax credit amount is \$0.35 per gallon multiplied by an emissions factor for sustainable aviation fuel. The tax credit amount is \$1.75 per gallon multiplied by an emissions factor for clean fuel produced at a qualified facility which meets the prevailing wage and apprenticeship requirements. The emissions factor of a transportation fuel shall be an amount equal to the quotient of (I) an amount equal to (aa) 50 kilograms of CO₂e per mMBTU, minus (bb) the emissions rate for such fuel, divided by (II) 50 kilograms of CO₂e per mMBTU. The tax credit amount is adjusted for inflation.

1. Sustainable aviation fuel is liquid fuel, the portion of which is not kerosene, which is sold for use in an aircraft and which (i) meets the requirements of (I) ASTM International Standard D7566, or (II) the Fischer Tropsch provisions of ASTM International Standard D1655, Annex A1, and (ii) is not derived from palm fatty acid distillates or petroleum.
2. The Secretary shall annually publish a table which sets forth the emissions rate for similar types and categories of transportation fuels based on the amount of lifecycle greenhouse gas emissions.
3. Prevailing wage requirements require that any laborers and mechanics employed by the Taxpayer or any contractor or subcontractor in the construction, or, the alteration or repair of a facility, shall be paid wages at rates not less than the prevailing rates in the locality in which such facility is located as determined by the Secretary of Labor.

- (i). An individual is employed if the individual performs services for the taxpayer, contractor, or subcontractor in exchange for remuneration, regardless of whether the individual would be characterized as an employee or an independent contractor for other Federal tax purposes.
 - (ii). Taxpayer may request a supplemental wage determination from the Department of Labor.
 - (iii). Laborers and mechanics are those individuals whose duties are manual or physical in nature (including those individuals who use tools or who are performing the work of a trade) and includes apprentices and helpers but does not include individuals whose duties are primarily administrative, executive, or clerical, rather than manual.
 - (iv). Construction, alteration or repair means all type of work performed at the location, but does not include maintenance work.
 - (v). The facility location includes secondary sites where a significant portion of the construction, alternation or repair of the facility occurs, provided that the secondary site either was established specifically for, or dedicated exclusively for a specific period of time to, the construction, alteration, or repair of the facility.
 - (vi). Taxpayers are required to report compliance with the prevailing wage requirements at the time of filing of a return claiming the increased credit.
 - (vii). The taxpayer must pay a penalty equal to \$5,000 (\$10,000 for intentional disregard) multiplied by the total number of laborers and mechanics who were paid wages at a rate below the required rate for any period during such year.
 - (viii). The penalty payment requirement would be waived if a correction payment (including interest) is made by the earlier of: (a) 30 days after the taxpayer becomes aware of the issue or (b) the date on which the tax return claiming the increased credit is filed, and the underpayment is either: (i) during pay periods for not more than 10% of all pay periods or (ii) not greater than 2.5% of the required wage.
 - (ix). The penalty payment requirement would not apply with respect to a laborer or mechanic employed under a qualifying project labor agreement.
 - (x). The correction and penalty payments would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.
4. Apprenticeship requirements require that not less than: (i) 10%, for qualified facilities which begin construction on or before December 31, 2022, (ii) 12.5%, for qualified facilities which begin construction on or before December 31, 2023, and (iii) 15%, for qualified facilities which begin construction after December 31, 2023, of total labor hours (including work performed by any contractor or subcontractor) be performed by qualified apprentices. Taxpayer may show good faith effort by requesting qualified apprentices from a registered apprenticeship program.
- (i). Each taxpayer, contractor or subcontractor who employs 4 or more individuals to perform construction, alteration or repair work must employ 1 or more qualified apprentices to perform such work.
 - (ii). Any applicable apprenticeship-to-journeyworker ratio must be satisfied on a daily basis.
 - (iii). A registered apprenticeship program is a program that has been registered by the Department of Labor's Office of Apprenticeship or a recognized State apprenticeship agency.
 - (iv). The apprentice must be participating in a registered apprentice program as demonstrated by a written apprenticeship agreement with the registered apprenticeship program.
 - (v). The good faith effort exception requires a written request to at least one registered apprenticeship program that has a geographic operation that includes the location of

the facility, or that can be reasonably expected to provide apprentices to the location of the facility, trains apprentices in the occupation(s) needed by the taxpayer, contractors, or subcontractors performing construction, alteration, or repair with respect to the facility, and has a usual and customary business practice of entering into agreements with employers for the placement of apprentices in the occupation for which they are training, pursuant to its standards and requirements.

- (vi). The good faith effort exception requires request has been denied for reasons other than the taxpayer, contractor, or subcontractor's refusal to comply with the program's standards and requirements or if the program fails to respond within five business days of receiving a request.
- (vii). The good faith effort exception requires submission of an additional request within 120 days of a previously denied request.
- (viii). A penalty of \$50 (\$500 for intentional disregard) multiplied by the total labor hours for which the taxpayer failed to meet the Labor Hours Requirement and the Participation Requirement.
- (ix). The penalty would remain the responsibility of the transferor taxpayer following a Section 6418 Transfer.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2027.

G. MISCELLANEOUS.

01. Alabama State Tax Incentives for Renewable Energy and Energy Efficiency

01.01 Alabama state property tax abatement for alternative energy electricity production facilities

A. GENERAL DESCRIPTION. Alabama provides a property tax abatement in the amount of 100% of the tax on plant, property, and facilities for owners of alternative energy electricity production facilities. *Ala. Code §40-9B-4.*

B. ELIGIBLE TAXPAYERS. Taxpayer utility, electric cooperative, municipal electric authority owners of alternative energy electricity production facilities.

1. Taxpayers include entities in which one or more of the foregoing owns an interest.

C. QUALIFYING ACTIVITY. Taxpayer must own alternative energy electricity production facilities. An alternative energy electricity production facility is any plant, property, or facility that produces electricity from alternative energy resources. Renewable energy resources are wind, biomass, black liquor, tidal or ocean current, geothermal, solar energy, small irrigation, municipal solid waste, hydropower, and hydrogen when derived or produced from some other renewable energy resource.

1. Alternative energy electricity production facilities must have capital costs of at least \$100 million.
2. Qualifying hydropower production facilities must have capital costs of at least \$5 million.

D. INCENTIVE AMOUNTS. The tax abatement amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement expires December 31, 2018.

G. MISCELLANEOUS.

01.02 Alabama state tax deduction for wood-burning heating systems

A. GENERAL DESCRIPTION. Alabama provides an income tax deduction in the amount of 100% the cost of converting an existing residential gas or electric heating system to a qualifying wood-burning heating system. *Ala. Code §40-18-15(a)(16).*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individuals owning converted heating systems.

C. QUALIFYING ACTIVITY. Taxpayer must convert an existing gas or electric heating system to a qualifying wood-burning heating system.

1. Qualifying wood-burning heating systems must be used as the primary energy source for heating a home.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the total cost of purchase and installation for the conversion from gas or electricity to wood.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deduction must be taken for the taxable year during which the conversion was completed.

G. MISCELLANEOUS.

03. Alaska State Tax Incentives for Renewable Energy and Energy Efficiency

03.01 Alaska state property tax exemption for residential renewable energy systems

A. GENERAL DESCRIPTION. Alaska provides a local option of property tax exemption assessment in the amount of 100% of the value of renewable energy systems that generate electricity for residential use. *Alaska Stat. §29.45.050(b)(E); S.B. 220 (2009)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy systems located in the municipality.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy systems that are used to develop means of energy production using energy sources other than fossil or nuclear fuel, including windmills and water and solar energy devices located in the municipality.

D. INCENTIVE AMOUNTS. The tax exemption amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

03.02 Alaska state property tax financing option for energy and resilience improvements

A. GENERAL DESCRIPTION. Alaska provides a property tax financing option for municipalities for energy and resilience improvements. *H.B. 80 (2017); Alaska Stat. §29.55.100 et seq. H.B. 227(2022)*.

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer financing energy and resilience improvements.

C. QUALIFYING ACTIVITY. Taxpayer must finance the construction, installation or modification of permanent improvements that are fixed to new construction or existing privately owned commercial or industrial property. Qualifying energy improvements are energy improvements designed to reduce energy consumption or demand, energy costs, or emissions affecting local air quality, including a product, device, or interacting group of products or devices that use energy technology to generate electricity, provide thermal energy, or regulate temperature. Qualifying resilience improvements are improvements that improve building resilience, including projects for seismic improvements, stormwater management, flood mitigation and protection, fire hardening, fire or wind resistance, erosion management, snow load management, microgrids for energy storage and backup power generation, water or wastewater efficiency including reuse and energy recovery, electric vehicle charging stations, retrofitting that improves the envelope, structure, or systems of the building, and any other improvement project approved by a municipality as a resilience improvement project.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME. A municipality may not impose a period of assessment under this section on privately owned commercial or industrial property that exceeds 30 years or the useful life of the project.

G. MISCELLANEOUS

03.03 Alaska state property tax credit for energy efficient construction

A. GENERAL DESCRIPTION. Alaska provides a local option of property tax credit in various amounts of the value of energy efficient construction. *Alaska Stat. §29.45.049; H.B. 232 (2020)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of energy efficient construction located in the municipality.

C. QUALIFYING ACTIVITY. Taxpayer must make improvements that are energy efficient new construction, refurbishments, remodels, and renovations meeting eligibility requirements of the municipality.

D. INCENTIVE AMOUNTS. The tax exemption amount varies by local jurisdiction.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit timeframe varies by local jurisdiction.

G. MISCELLANEOUS.

04. Arizona State Tax Incentives for Renewable Energy and Energy Efficiency

04.01 Arizona state property tax abatement for renewable energy operations

A. GENERAL DESCRIPTION. Arizona provides a property tax abatement in the amount up to 75% for renewable product manufacturers expanding or locating manufacturing operations. *Ariz. Rev. Stat. Ann. §42-12006(8); Ariz. Rev. Stat. §41-1511; Ariz. Admin. Code R20-1-301 et seq.*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer manufacturers expanding or locating qualifying renewable energy operations.

1. Taxpayer must be certified by the AZ Commerce Authority.
2. Taxpayer must meet certain minimum requirements for the quantity and quality of new jobs created.
3. Taxpayer must invest at least \$25 million in facilities, equipment, land and infrastructure.

C. QUALIFYING ACTIVITY. Taxpayer must own taxable renewable energy property or biofuel. Renewable energy is electricity produced by sunlight, water, wind, geothermal heat, or other nonfossil renewable source.

1. Biofuel is a solid, liquid, or gaseous fuel that is derived from biological material, excluding organic material that has been transformed by geological processes into substances such as coal or petroleum, which also contains fuel additives in compliance with federal and state law and is manufactured exclusively for use in a motor vehicle.

D. INCENTIVE AMOUNTS. The tax abatement amount reduces the property tax assessments for class 6 properties to a ratio of 5% and class 1 properties to a ratio of 22%.

1. Qualifying property will be designated as a class 6 property for a period of 10 years if 51% or more of the full-time employees are paid 125% to 199% of the median income in

Arizona, or 15 years if 51% or more of the full-time employees are paid 200% or more of the median income in Arizona.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement expires December 31, 2014. The tax abatement expires December 31, 2023 for biofuel property.

G. MISCELLANEOUS.

04.02 Arizona state property tax assessment for renewable energy property

A. GENERAL DESCRIPTION. Arizona provides a property tax assessment in the amount of 20% of the cost the renewable energy equipment owned by utilities and other entities. *Ariz. Rev. Stat. §42-14154 et seq.; H.B. 2153 (2021).*

B. ELIGIBLE TAXPAYERS. Taxpayer utilities and other entities owning taxable renewable energy equipment.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy equipment. Renewable energy equipment is electric generation facilities, electric transmission, electric distribution, gas distribution or combination gas and electric transmission and distribution cooperative property, that is used or useful for the generation, storage, transmission or distribution of electric power, energy or fuel derived from solar, wind or other non-petroleum renewable sources not intended for self-consumption, including materials and supplies and construction work in progress.

1. Renewable energy equipment includes all energy storage equipment, both colocated with renewable energy and stand-alone energy storage equipment, Energy storage is commercially available technology for electric utility scale that is capable of absorbing energy, storing energy for a period of time and thereafter dispatching the energy and that uses mechanical, chemical or thermal processes to store energy. Electric utility scale is a person that is engaged in a business activity of producing and furnishing or

furnishing to consumers natural or artificial gas and water, or providing to retail electric customers ancillary services, electric distribution services, electric generation services, electric transmission services and other services related to providing electricity, or such person's equipment or wholesale electricity suppliers.

D. **INCENTIVE AMOUNTS.** The tax assessment amount is 20% of its depreciated cost.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax assessment expires December 31, 2040.

G. **MISCELLANEOUS.**

04.03 Arizona state income tax credit for environmental technology facilities

A. **GENERAL DESCRIPTION.** Arizona provides an income tax credit in the amount of 10% of the construction costs for environmental technology manufacturing, producing or processing facilities. *Ariz. Rev. Stat. §42-1105; Ariz. Rev. Stat. §41-1514.02; Ariz. Rev. Stat. §43-1169; Ariz. Rev. Stat. Ann. §43-1080; Ariz. Admin. Code §R15-2D-1001.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer constructing environmental technology facilities.

1. Taxpayers must be certified by the AZ Commerce Authority.
2. Taxpayer partners in a partnership claim their pro-rata share of the tax credit based on ownership interest.

C. **QUALIFYING ACTIVITY.** Taxpayer must construct environmental technology manufacturing, producing or processing facilities. Environmental technology is solar and other renewable energy products or recycled materials. Renewable energy is energy that is supplied from sources that are continually replenished from the sun, the earth or the waste stream, including hydroelectric, solar-thermal, photovoltaic, biomass, wind and geothermal processes.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 10% of the amount spent to construct the renewable energy operation.

1. Qualifying costs include land acquisition, improvements, and equipment devoted to production or processing of solar or renewable energy products.
2. Qualifying costs must be included in Taxpayer's adjusted basis for the renewable energy operation.
3. Qualifying costs may include construction within 10 years after the start of the renewable energy operation's initial construction.

E. **INCENTIVE LIMITS.** The maximum annual tax credit allowed to be claimed is 75% of the tax liability for the tax year.

F. **INCENTIVE TIMEFRAME.** Unused tax credit may be carried forward 15 years.

G. **MISCELLANEOUS.** The tax credit may be recaptured if the qualifying renewable energy operation is not placed in service or if taken out of service within 5 years.

1. The adjusted basis of a qualifying renewable energy operation must be reduced by the amount of tax credit claimed with respect to the renewable energy operation.

04.04 Arizona state income tax credit for non-residential solar and wind energy devices

A. **GENERAL DESCRIPTION.** Arizona provides an income tax credit in the amount of 10% the cost of solar and wind installations in commercial and industrial applications. *Ariz. Rev. Stat. §43-1085; Ariz. Rev. Stat. §43-1164; Ariz. Rev. Stat. §41-1510.01; H.B. 2700 (2010); Arizona Taxpayer Information Ruling No. LR13-001; Arizona Corporate Tax Ruling No. 13-2.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations and individuals installing qualifying solar energy devices.

1. Taxpayer or an entity exempt from taxation may transfer the tax credit to third

party who installs or manufacture the systems for non-residential applications.

2. Taxpayer partners in a partnership claim only the pro rata share of the tax credit based on the ownership interest or financial investment in the system. The total of tax credit allowed all such Taxpayer owners may not exceed the amount that would have been allowed a sole Taxpayer owner.

C. QUALIFYING ACTIVITY. Taxpayer must install solar energy device in commercial and industrial applications. A solar energy device is a system or series of mechanisms designed primarily to provide heating, to provide cooling, to produce electrical power, to produce mechanical power, to provide solar daylighting or to provide any combination of the foregoing by means of collecting and transferring solar generated energy into such uses either by active or passive means, including wind generator systems that produce electricity.

1. Solar energy devices must be certified by the AZ Commerce Authority.
2. Solar energy devices may also have the capability of storing solar energy for future use.
3. Solar energy devices include passive systems clearly designed as a solar energy device, such as a trombe wall, and not merely as a part of a normal structure, such as a window.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the installed cost of qualifying solar energy devices.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$50,000 and \$25,000 per building. The statewide maximum annual tax credit amount is \$1 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2018. Unused credit may be carried forward 5 years.

G. MISCELLANEOUS.

04.05 Arizona state property tax exemption for energy efficiency and renewable energy equipment

A. GENERAL DESCRIPTION. Arizona provides a property tax exemption in the amount of 100% of the value of energy efficiency and renewable energy equipment. *Ariz. Rev. Stat. §42-11054; Ariz. Rev. Stat. §44-1761; H.B. 2493 (2019); Ariz. Rev. Stat. §42-1305.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of energy efficiency and renewable energy equipment.

C. QUALIFYING ACTIVITY. Taxpayer must own energy efficiency and renewable energy equipment, including solar energy devices, energy efficient building components, renewable energy equipment and combined heat and power systems. Solar energy device is a system or series of mechanisms designed primarily to provide heating, to provide cooling, to produce electrical power, to produce mechanical power, to provide solar daylighting or to provide any combination of the foregoing by means of collecting and transferring solar generated energy into such uses either by active or passive means. Energy efficient building components are high performance sustainable building components installed so that the buildings or building components meet or exceed the energy efficiencies prescribed by the US EPA Energy Star Program or by a LEED green building rating standard developed by the USGBC, or an equivalent green building standard, or that are at least 15% more energy efficient than the international energy conservation code in effect at the time of building permit issuance. Renewable energy equipment is equipment that is used to produce energy primarily for on-site consumption from renewable resources, including wind, forest thinnings, agricultural waste, biogas, biomass, geothermal, low-impact hydropower and solar energy not included above. Combined heat and power system is a system that generates electricity or mechanical power and useful thermal energy in a single, integrated system such that the useful power output of the facility plus one-half the useful thermal output during any twelve-month period is no less than 42.5% of the total energy input of fuel to the facility.

1. Solar energy devices may also have the capability of storing solar energy for future use.

2. Solar energy devices include passive systems clearly designed as a solar energy device, such as a trombe wall, and not merely as a part of a normal structure, such as a window.

3. Energy efficient building components, renewable energy equipment and combined heat and power systems must be certified by the county assessor.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

1. The tax exemption for grid-tied photovoltaic systems and any other device or system designed to produce solar energy primarily for on-site consumption is calculated by taking the qualifying property's taxable original cost, and subtracting any appropriate depreciation as prescribed by tables adopted by the department. Taxable original cost is the original cost minus the value of any investment tax credits, production tax credits or cash grants in lieu of investment tax credits applicable to the qualifying property.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The documentation must be submitted to the county assessor no later than 6 months before the notice of full cash value is issued for the initial evaluation year or, if the component is added after September 30 of the preceding year, no later than March 31 of the initial valuation year.

G. MISCELLANEOUS.

04.06 Arizona state sales tax exemption for solar and wind energy devices

A. GENERAL DESCRIPTION. Arizona provides a sales tax exemption on 100% of the tax on retail sale of solar and wind energy devices and installation of solar and wind energy devices by contractors. *Ariz. Rev. Stat. §42-5061(N)*; *Ariz. Rev. Stat. §42-5075(B)(14)*; *H.B. 2160 (2010)*; *H.B. 2700 (2010)*; *Arizona Private Taxpayer Ruling LR12-001*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of taxable solar energy devices and installation services.

1. Solar energy retailer or a solar energy contractor must be certified by the AZ Department of Revenue. Retailer must make its books and records relating to sales of solar energy devices available to the AZ Department of Revenue for examination.

C. QUALIFYING ACTIVITY. Taxpayer must purchase solar energy devices. Solar energy devices include wind electric generators and wind-powered water pumps in addition to daylighting, passive solar heating, active solar space heating, solar water heating, and photovoltaics.

1. Solar energy device does not include batteries, controls, etc., that are not part of the system.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the gross proceeds of sales or gross income derived from a contract to provide and install a solar energy device.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2016.

G. MISCELLANEOUS. Municipalities may impose a 0.5 to 2% city sales tax that is applicable to sales or installations of solar and wind energy devices, unless a city specifically exempts such sales under its city tax code.

04.07 Arizona state income tax credit for electric vehicle recharge outlets

A. GENERAL DESCRIPTION. Arizona provides an income tax credit in the amount of 100% of the cost of installing or including electric vehicle recharge outlets. *Ariz. Rev. Stat. §43-1176*; *Ariz. Rev. Stat. Ann. §43-1090*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers constructing dwelling units with electric vehicle recharge outlets.

1. The tax credit may be transferred to a Taxpayer purchaser of the dwelling unit.

C. QUALIFYING ACTIVITY. Taxpayer must install or include electric vehicle recharge outlets in constructed dwelling units.

1. Qualifying electric vehicle recharge outlets must be connected to the utility system by a dedicated line that is capable of operating at normal secondary voltages.

2. Qualifying electric vehicle recharge outlets must meet applicable local building safety codes and be commensurate and consistent with electric vehicle recharging needs and methods.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the cost of installing or including electric vehicle recharge outlets.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$75 per installation.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS. The tax credit is in lieu of any expense deductions taken for installation of the electric vehicle recharge outlets.

04.08 Arizona state income tax credit for solar hot water heating

A. GENERAL DESCRIPTION. Arizona provides an income tax credit in the amount of 100% of the cost of installing or including solar hot water plumbing stub outs in dwelling units. *Ariz. Rev. Stat. §43-1176; Ariz. Rev. Stat. Ann. §43-1090.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers constructing dwelling units with solar hot water plumbing stub outs.

1. The tax credit may be transferred to Taxpayer purchaser of the dwelling unit.

C. QUALIFYING ACTIVITY. Taxpayer must install or include solar hot water plumbing stub outs in constructed dwelling units.

1. Qualifying stub outs must include 2 insulated 3/4 inch copper pipes and at least 2 pairs of wires for monitoring and control purposes.

2. Qualifying stub outs must be configured to allow sufficient solar access and exposure and to allow ready installation of solar water heating devices without further expense or effort to reach, use or serve the domestic hot water system of the dwelling.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the cost of installing or including solar hot water plumbing stub outs.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$75 per installation.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS. The tax credit is in lieu of any expense deductions taken for installation of the plumbing stub outs.

04.09 Arizona state income tax credit for residential solar and wind energy devices

A. GENERAL DESCRIPTION. Arizona provides an income tax credit in the amount of 25% of the cost of installing solar energy devices in the taxpayer's residence. *Ariz. Rev. Stat. §43-1083; Ariz. Rev. Stat. §44-1761; Arizona DOR Publication No. 543, 04/01/2013; Arizona Private Taxpayer Ruling LR14-002; Arizona DOR Publication No. 543, 07/01/2017; Income Tax Credit for Residential Solar Devices, Ariz. Dept. of Rev. 03/16/2022.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals installing solar energy devices in their residence.

1. Taxpayer husband and wife who file separate returns for a taxable year in which they could have filed a joint return may each claim only 1/2 of the tax credit that would have been allowed for a joint return.

C. QUALIFYING ACTIVITY. Taxpayer must install a solar energy device in Taxpayer's residence. A

solar energy device is a system or series of mechanisms designed primarily to provide heating, to provide cooling, to produce electrical power, to produce mechanical power, to provide solar daylighting or to provide any combination of the foregoing by means of collecting and transferring solar generated energy into such uses either by active or passive means, including wind generator systems that produce electricity.

1. Solar energy devices may also have the capability of storing solar energy for future use.
2. Solar energy devices include passive systems clearly designed as a solar energy device, such as a trombe wall, and not merely as a part of a normal structure, such as a window.
3. Solar energy devices do not include solar hot water heater plumbing stub outs installed by the builder of a house or dwelling unit before title was conveyed to the taxpayer or swimming pool covers.
4. Solar energy devices must have components of the solar energy device and their installation warranted for a period of at least 1 year and the collectors, heat exchangers and storage units and their installation warranted for a period of at least 2 years.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of the solar energy device.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$1,000. The maximum cumulative tax credit amount is \$1,000 per residence.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

04.10 Arizona state income tax deduction for qualifying wood stoves

A. GENERAL DESCRIPTION. Arizona provides an income tax deduction in the amount of 100% of the cost to convert an existing wood fireplace to a qualifying wood stove. *Ariz. Rev. Stat. §43-1027.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individual owners of converted wood stoves.

C. QUALIFYING ACTIVITY. Taxpayer must convert an existing wood fireplace to a qualifying wood stove, wood fireplace or gas fired fireplace and non-optional equipment directly related to its operation on property.

1. A qualifying wood stove or wood fireplace is a residential wood heater that meets the standards of performance for new residential wood heaters.

2. A qualifying gas fired fireplace is any device that burns natural or liquefied petroleum gas as its fuel through a burner system that is permanently installed in the fireplace.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the cost of conversion.

E. INCENTIVE LIMITS. The maximum tax deduction amount is \$500.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

04.11 Arizona state income tax credit for production of electricity using renewable energy resources

A. GENERAL DESCRIPTION. Arizona provides an income tax credit in amounts ranging from \$0.01 to \$0.04 per kilowatt hour of the first 200,000 megawatt hours of electricity produced per year by a qualified energy generator over a ten year period. *Ariz. Rev. Stat. Ann. §43-1083.02; Ariz. Rev. Stat. Ann. §43-1164.03; S.B. 1254 (2010).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of qualified energy generators.

1. Taxpayer flow-through entities must allocate the tax credit to members, partners, or shareholders in proportion to their share of ownership on the last day of the Taxpayer's tax period.

2. Taxpayer may not own any existing qualified energy generator, within 1 mile of a new qualified energy generator, for which Taxpayer or an affiliate of Taxpayer is already receiving the tax credit.

C. **QUALIFYING ACTIVITY.** Taxpayer must own and produce electricity from a qualified energy generator. A qualified energy generator is a facility that has at least 5 megawatts generating capacity, is located on land owned or leased by Taxpayer, produces electricity using a qualified energy resource and sells that electricity to an unrelated entity, unless the electricity is sold to a public service corporation.

1. Qualifying energy resource includes wind, solar or biomass.

2. Biomass is organic material that is available on a renewable or recurring basis, including: forest-related materials, including mill residues, logging residues, forest thinnings, slash, brush, low-commercial value materials or undesirable species, salt cedar and other phreatophyte or woody vegetation removed from river basins or watersheds, and woody material harvested for the purpose of forest fire fuel reduction or forest health and watershed improvement; agricultural-related materials, including orchard trees, vineyard, grain or crop residues, including straws and stover, aquatic plants and agricultural processed coproducts, and waste products, including fats, oils, greases, whey and lactose; animal waste, including manure and slaughterhouse and other processing waste; solid woody waste materials, including landscape or right-of-way tree trimmings, rangeland maintenance residues, waste pallets, crates and manufacturing, construction and demolition wood wastes, excluding pressure-treated, chemically-treated or painted wood wastes and wood contaminated with plastic; crops and trees planted for the purpose of being used to produce energy; and landfill gas, wastewater treatment gas and biosolids, including organic waste byproducts generated during the wastewater treatment process.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$0.01 per kilowatt hour of the first 200,000

megawatt hours of electricity produced using a wind or biomass. The tax credit amount is \$0.01 to \$0.04 per kilowatt hour of the first 200,000 megawatt hours of electricity produced using solar or heat derived energy source.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amount is \$2 million per facility. The maximum statewide annual tax credit amount is \$20 million.

F. **INCENTIVE TIMEFRAME.** The tax credit period is 10 years. Unused tax credit may be carried forward 5 years. The tax credit expires December 31, 2020.

G. **MISCELLANEOUS.**

04.12 Arizona state sales tax exemption for fuels sold to environmental technology facilities

A. **GENERAL DESCRIPTION.** Arizona provides a sales tax exemption in the amount of 100% for fuels sold to qualified environmental technology manufacturer, producer or processor. *Ariz. Rev. Stat. §41-1514.2; 42-5159(A); H.B. 2160 (2010).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchaser of coal, petroleum, coke, natural gas, virgin fuel oil and electricity used or consumed in the generation or provision of on-site power of energy for manufacturers, producers or processors of environmental technology.

1. Taxpayer must be certified by the AZ Commerce Authority.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase coal, petroleum, coke, natural gas, virgin fuel oil and electricity used or consumed in the generation or provision of on-site power of energy for manufacturers, producers or processors of environmental technology. Taxpayer must manufacture, produce or process environmental technology. Environmental technology is hydroelectric, solar-thermal, photovoltaic, biomass, wind and geothermal processes.

D. INCENTIVE AMOUNTS. The tax exemption amount 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 20 years.

G. MISCELLANEOUS.

04.13 Arizona state income tax credit for solar liquid fuel

A. GENERAL DESCRIPTION. Arizona provides an income tax credit in various amounts for the research and development, production and retail sale conversions of solar liquid fuel. *Ariz. Rev. Stat. §43-1085.01; Ariz. Rev. Stat. Ann. §43-1164.02 et seq.; H.B. 2370 (2010).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer research and developers, producers and owners of retail sale conversions of solar liquid fuel.

1. Taxpayer flow-through entities must allocate the tax credit to members, partners, or shareholders in proportion to their share of ownership on the last day of the Taxpayer's tax period.

C. QUALIFYING ACTIVITY. Taxpayer must research and develop, produce or own retail sale conversions of solar liquid fuel. Solar liquid fuel is liquid fuel that is generated through processes that use sunlight, carbon dioxide and water to produce infrastructure compatible liquid hydrocarbon fuels.

D. INCENTIVE AMOUNTS. The tax credit amount for research and development is 40% of the amount exceeding the base amount under Code §41(c). The tax credit amount for production is \$0.11 per gallon of solar liquid fuel produced. The tax credit amount for retail sale conversions is 30% of the cost of converting or modifying a motor vehicle fuel service station for the retail sale of solar liquid fuel.

E. INCENTIVE LIMITS. The maximum annual tax credit for retail sale conversions is \$20,000 per service station.

F. INCENTIVE TIMEFRAME. The tax credit for research and development expires December 31, 2021. The tax credit for production and retail sale conversions is available December 31, 2015 and expires December 31, 2026.

G. MISCELLANEOUS. Taxpayer may not claim the tax credit for the same expenses related to increased research and development under *Ariz. Rev. Stat. §§43-1074.01 or 43-1168.*

04.14 Arizona state sales tax exemption for environmental technology facilities

A. GENERAL DESCRIPTION. Arizona provides a sales tax exemption in the amount of 100% for qualified environmental technology manufacturers, producers or processors. *Ariz. Rev. Stat. Ann. §42-5061.D; Ariz. Rev. Stat. Ann. §42-5159; Ariz. Rev. Stat. Ann. §43-1169.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers or lessors of machinery, equipment, and other personal property used as part of the construction or improvement to an environmental technology manufacturing, production or processing facility.

1. Taxpayer must be certified by the AZ Commerce Authority.

C. QUALIFYING ACTIVITY. Taxpayer must purchase or lease machinery, equipment, and other personal property used as part of the construction or improvement to an environmental technology manufacturing, production or processing facility. Environmental technology is hydroelectric, solar-thermal, photovoltaic, biomass, wind and geothermal processes.

D. INCENTIVE AMOUNTS. The tax exemption amount 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

04.15 Arizona state income tax credit for manufacturing investment in new renewable energy facilities

A. GENERAL DESCRIPTION. Arizona provides an income tax credit in the amount of \$1 million per year for 5 years for investment in new renewable energy facilities that produce energy for self-consumption using renewable energy resources if the power will be used primarily for manufacturing. *Ariz. Rev. Stat. Ann. §43-1083.04; Ariz. Rev. Stat. Ann. §43-1164.05.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporate manufacturers.

1. Taxpayer must be certified by the AZ Department of Revenue.
2. Taxpayer flow-through entities must allocate the tax credit to members, partners, or shareholders in proportion to their share of ownership.

C. QUALIFYING ACTIVITY. Taxpayer must invest at least \$300 million in new renewable energy facilities that produce energy for self-consumption using renewable energy resources. A renewable energy facility is a facility in which the Taxpayer invested at least \$30 million dollars, that has at least 20 megawatts generating capacity or a minimum typical annual generation of 40,000 megawatt hours, that is located on land owned or leased by the Taxpayer and that produces electricity using a qualified renewable energy resource. Renewable energy resource is solar light, solar heat, wind and biomass, including fuel cells supplied directly or indirectly with biomass generated fuels.

1. Taxpayer must use 90% of the energy produced at each renewable energy facility for self-consumption.
2. Taxpayer must use the power primarily for manufacturing.

D. INCENTIVE AMOUNTS. The tax credit amount is \$1 million per year for 5 years.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$1 million per facility. The maximum taxpayer annual tax credit amount is \$5

million. The maximum statewide annual tax credit amount is \$10 million.

F. INCENTIVE TIMEFRAME. The tax credit period is 5 years. The minimum investment must be completed within a 3-year period beginning on the date the initial application is received or December 31, 2017. Unused tax credit may be carried forward 5 years

1. Taxpayer must start construction within 6 months after submitting the application.

G. MISCELLANEOUS.

1. If Taxpayer fails to make the required dollar investment within the time period, the Taxpayer must cease claiming any tax credits and shall recapture any tax credits already claimed.
2. Taxpayer may not claim a tax credit under this section and section 43-1083.02

04.16 Arizona state sales tax exemption for energy storage

A. GENERAL DESCRIPTION. Arizona provides a sales tax exemption in the amount of 100% for energy storage machinery and equipment. *Ariz. Rev. Stat. Ann. §42-5159(B)(5); Ariz. Rev. Stat. Ann. §___; H.B. 2153 (2021).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to electric utility Taxpayer purchasers or lessors of energy storage machinery and equipment.

1. Electric utility is a person that is engaged in a business activity of producing and furnishing or furnishing to consumers natural or artificial gas and water, or providing to retail electric customers ancillary services, electric distribution services, electric generation services, electric transmission services and other services related to providing electricity, or such person's equipment or wholesale electricity suppliers.

C. QUALIFYING ACTIVITY. Taxpayer must purchase or lease energy storage machinery and equipment used directly for energy storage for

later electrical use. All machinery and equipment that are used for electric energy storage from the point of receipt of such energy in order to facilitate storage of the electric energy to the point where the electric energy is released. Energy storage is commercially available technology for electric utility scale that is capable of absorbing energy, storing energy for a period of time and thereafter dispatching the energy and that uses mechanical, chemical or thermal processes to store energy.

D. INCENTIVE AMOUNTS. The tax exemption amount 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

05. Arkansas State Tax Incentives for Renewable Energy and Energy Efficiency

05.01 Arkansas state income tax credit for biodiesel suppliers

A. GENERAL DESCRIPTION. Arkansas provides an income tax credit in the amount of 5% of the cost of facilities and equipment used directly in the wholesale and retail distribution of biodiesel fuels. *Ark. Code Ann. §15-4-2803.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer suppliers purchasing facilities and equipment used directly in the wholesale and retail distribution of biodiesel fuels.

1. Taxpayer must be customarily in the wholesale business of offering distillate special fuels or liquefied gas special fuels for resale or use to any person in Arkansas.

C. QUALIFYING ACTIVITY. Taxpayer must purchase facilities and equipment used directly in the wholesale and retail distribution of biodiesel fuels. Biodiesel fuel is renewable, biodegradable, mono alkyl ester combustible liquid fuel derived from agricultural plant oils or animal fats that meet the American Society for Testing and Material Specification D6751-02 for Biodiesel Fuel, or B100 Bland Stock for Distillate Fuels, as in effect on February 1, 2003.

D. INCENTIVE AMOUNTS. The tax credit amount is 5% of the cost of facilities and equipment.

1. The cost of facilities and equipment does not include the cost of service contracts, sales tax, or acquisition of undeveloped land.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 3 years.

G. MISCELLANEOUS.

05.02 Arkansas state income tax credit for rice straw

A. GENERAL DESCRIPTION. Arkansas provides an income tax credit in the amount of \$15 per ton of rice straw over 500 tons purchased. *Ark. Code Ann. §26-51-512.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of rice straw.

C. QUALIFYING ACTIVITY. Taxpayer must purchase rice straw over 500 tons for processing, manufacturing, generating energy, or producing ethanol. Rice straw is the dry stems of rice left after the seed heads have been removed.

D. INCENTIVE AMOUNTS. The tax credit amount is \$15 per ton of rice straw over 500 tons purchased by Taxpayer.

E. INCENTIVE LIMITS. The maximum annual tax credit allowable is 50% of the amount of income tax due for that tax year.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS. Taxpayer may not claim any other state tax credit or deduction for the purchase of rice straw.

05.03 Arkansas state sales tax exemption for retail biodiesel fuel

A. GENERAL DESCRIPTION. Arkansas provides a sales tax exemption in the amount of 100% of the sales tax due on biodiesel fuels. *Ark. Code Ann. §26-52-401(11).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer retail sellers of biodiesel fuels.

C. QUALIFYING ACTIVITY. Taxpayer must purchase biodiesel fuel. Biodiesel fuel is a diesel fuel substitute produced from nonpetroleum renewable resources.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

05.04 Arkansas state income tax credit for targeted businesses

A. GENERAL DESCRIPTION. Arkansas provides an income tax credit in the amount of 10% of annual payroll of targeted businesses. *Ark. Code Ann. §15-4-2703 et seq.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer employers in targeted businesses.

1. Taxpayer must be certified by AR Department of Economic Development.

C. QUALIFYING ACTIVITY. Taxpayer must be an employer in targeted businesses. Targeted business include energy reduction, distributed energy generation, bio-based products with emphasis on biodiesel, ethanol, methanol, systematic crude oil, adhesives, polymers, automotive components and engineered products from nontraditional biomass sources

1. A targeted business must: (1) have an annual payroll for Arkansas taxpayers of not less than \$100,000, but no more than \$1 million; (2) show proof of an equity investment of \$250,000 or more; and (3) pay average hourly wages exceeding 150% of the county or state average hourly wage, whichever is less.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of annual payroll of targeted businesses.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$100,000.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 3 years.

G. MISCELLANEOUS.

05.05 Arkansas state sales tax refund for targeted businesses

A. GENERAL DESCRIPTION. Arkansas provides a sales and use tax refund in the amount of 100% of sales and use tax paid by targeted businesses for purchase of material used in the construction or expansion of eligible business. *Ark. Code Ann. §15-4-2703 et seq.*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer purchasers establishing or expanding targeted businesses.

1. Taxpayer must be certified by AR Department of Economic Development.

C. QUALIFYING ACTIVITY. Taxpayer must purchase materials in the establishment or expansion of targeted businesses. Targeted business include energy reduction, distributed energy generation, bio-based products with emphasis on biodiesel, ethanol, methanol, systematic crude oil, adhesives, polymers, automotive components and engineered products from nontraditional biomass sources.

1. A targeted business must: (1) have an annual payroll for Arkansas taxpayers of not less than \$100,000, but no more than \$1 million; and (2) show proof of an equity investment of \$250,000 or more.

D. INCENTIVE AMOUNTS. The tax refund amount is of 100% of sales and use tax paid by targeted businesses for purchase of material used in the construction of buildings or the addition, modification or improvement of a new or expanding eligible business.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax refund amount must be claimed within 3 years after the date of qualified purchase.

G. MISCELLANEOUS.

05.06 Arkansas state income tax exemption for drop-in biofuels manufacturers.

A. GENERAL DESCRIPTION. Arkansas provides an income tax exemption in the amount of 100% of

the income of drop-in biofuels manufacturers. *Ark. Code Ann. §26-51-313.*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer manufacturers of drop-in biofuels manufacturing facilities.

1. Taxpayer must be certified by AR Department of Economic Development.

C. QUALIFYING ACTIVITY. Taxpayer must be a qualified drop-in biofuels manufacturer. A drop-in biofuel is a liquid motor fuel that: (a) is a substitute for conventional petroleum-based motor fuel; (b) is completely interchangeable and compatible with conventional petroleum-based motor fuel; (c) does not require modification of conventional engine fuel systems; (d) can be delivered through the existing fuel distribution systems, including without limitation: (i) intrastate and interstate petroleum pipelines; and (ii) existing gasoline and diesel fuel pumps.

1. A qualified drop-in biofuels manufacturer must: (i) invest at least \$20 million in a new or expanded drop-in biofuels manufacturing facility; and (ii) create at least 100 new jobs.

D. INCENTIVE AMOUNTS. The tax exemption amount is of 100% of income.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is equal to $\left(\frac{110\% \times \text{state average hourly wage} \times 2,080 \times 1,000}{\text{project average hourly wage} \times 2,080 \times \text{number of jobs created}}\right) \times 0.6 + \left(\frac{\text{project investment amount}}{\$250 \text{ million}} \times 0.4\right) \times 20$ years. The maximum tax exemption period is 20 years. The tax exemption expires June 30, 2023.

G. MISCELLANEOUS.

05.07 Arkansas state income tax credit for wood energy products

A. GENERAL DESCRIPTION. Arkansas provides a income tax credit in the amount of 30% of cost of wood energy products. *Arkansas Code § 26-51-2704; H.B. 1779 (2023).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers wood energy products equipment.

1. Taxpayer must be certified by AR Department of Economic Development.
2. Taxpayer must be in the business of collecting, separating, treating, pulverizing, drying, modifying, or manufacturing wood energy products.

C. QUALIFYING ACTIVITY. Taxpayer must purchase wood energy products equipment for use in Arkansas. Wood energy products equipment is (i) new or used machinery or equipment located in Arkansas on the last day of the taxable year that is operated or used exclusively in Arkansas to collect, separate, treat, pulverize, dry, modify, or convert wood fiber so the resulting product may be used as a raw material, for productive energy use, or to manufacture other materials; (ii) devices that are directly connected with or are an integral and necessary part of machinery or equipment operated or used exclusively in Arkansas to collect, separate, treat, pulverize, dry, modify, or convert wood fiber and are necessary for the collection, separation, treatment, pulverization, drying, modification, or manufacturing of wood fiber; (iii) equipment that produces energy with wood power; and (iv) a device that is directly connected with or is an integral and necessary part of machinery or equipment operated or used exclusively in Arkansas to produce energy with wood power.

1. Taxpayer must enter into an agreement with the Arkansas Economic Development Commission to provide the business an incentive to locate a new qualified wood energy products and forest maintenance project or a qualified wood energy products and forest maintenance expansion project in Arkansas.
2. Wood energy products equipment does not include a vehicle or trailer that is licensed or that normally would be licensed for use on highways.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the cot of wood energy products.

E. INCENTIVE LIMITS.

1. Taxpayer may only claim the lesser of \$5 million or the amount of income tax due by Taxpayer, unless the Taxpayer has a public retirement system of the State of Arkansas as a proprietor, partner member, shareholder or holding an interest.

F. INCENTIVE TIMEFRAME. The tax credit may be carried forward indefinitely.

G. MISCELLANEOUS. The Taxpayer must provide notice to the Department of Finance and Administration of the amount of tax credits that will be sold or transferred for value.

06. California State Tax Incentives for Renewable Energy and Energy Efficiency

06.01 California state property tax exclusion for active solar energy systems

A. GENERAL DESCRIPTION. California provides a state property tax appraisal exclusion in amounts ranging from 75-100% the cost of active solar energy systems. *Cal Rev & Tax Code §73, A.B. 1451 (2008); A.B. 15 (2011); California SBE Special Tax Notice L-330 (2012); California State Board of Equalization Letter to Assessors No. 2013/042; S.B. 871 (2014); California State Board of Equalization Letter to Assessors No. 2014/037; California SBE Information Publication 235G, 10/01/2014; California State Board of Equalization Letter to Assessors No. 2019/035, 11/13/2019; S.B. 364 (2020); S.B. 267 (2021); California SBE Letter to Assessors No. 2022/023, 06/10/2022); S.B. 1340 (2022).*

B. ELIGIBLE TAXPAYERS. The tax exclusion is available to Taxpayer owner-builders or initial purchasers of taxable property incorporating active solar energy systems.

1. Taxpayer owner-builder or seller must not have received a tax exclusion for the same active solar energy system.
2. Taxpayer initial purchaser must have purchased the new building prior to that building becoming subject to reassessment to the Taxpayer owner-builder seller.
 - (i). Taxpayer initial purchaser must file a claim with the assessor and provide to the assessor any documents necessary to identify the value attributable to the active solar energy system included in the purchase price of the new building and identify the amount of any rebate for the active solar energy system provided to either the owner-builder seller or the Taxpayer initial purchaser by any agency of California.
3. In the case of a legal entity that owns an active solar energy system pursuant to a partnership flip transaction, neither an initial transfer of a capital and profits interest in the

legal entity, nor any subsequent change in the allocation of the capital and profits of the legal entity among the members, shall be deemed to constitute a transfer of control of, or of a majority interest in, the legal entity.

C. QUALIFYING ACTIVITY. Taxpayer must own or build active solar energy systems. Active solar energy systems are systems that uses solar devices, which are thermally isolated from living space or any other area where the energy is used, to provide for the collection, storage, or distribution of solar energy once the system has finished being built as part of a new property or has finished being added to an already existing property. Active solar energy systems include storage devices, power conditioning equipment, transfer equipment, and parts related to the functioning of those items.

1. Active solar energy systems may be used for domestic, recreational, therapeutic, or service water heating, space conditioning, production of electricity, process heat and solar mechanical energy.
2. Active solar energy systems do not include auxiliary equipment, such as furnaces and hot water heaters, that use a source of power other than solar energy to provide usable energy.
3. Active solar energy systems include dual use equipment such as ducts and hot water tanks, farm equipment and machinery, that is utilized by both auxiliary equipment and solar energy equipment. To qualify, 50% or more of the electricity generated by a solar power facility must be used in the production and harvesting of agricultural products.
4. Active solar energy systems do not include solar swimming pool heaters or hot tub heaters.

D. INCENTIVE AMOUNTS. The tax exclusion amount is 100% of the property tax due.

1. For dual use equipment, the tax exclusion amount is 75% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exclusion expires on December 31, 2026.

G. MISCELLANEOUS.

06.02 California state property tax financing for municipal energy districts

A. GENERAL DESCRIPTION. California provides the local option of property tax financing for municipal energy districts which are authorized to provide financing for the installation of distributed generation renewable-energy systems, energy-efficiency improvements and water-efficiency improvements to residential, commercial, industrial or other real property. *CA Streets and Highways Code §5898.10 et. seq.*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners of taxable distributed generation renewable-energy systems, energy-efficiency and water-efficiency improvements in municipal energy district.

1. Taxpayer owner must have clean property title and must be current on property taxes and mortgages.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance the installation of renewable-energy systems, energy-efficiency improvements and water-efficiency improvements to residential, commercial, industrial or other real property.

1. Qualifying improvements must be permanently fixed to the real property.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax financing term is up to 20 years.

G. MISCELLANEOUS.

06.03 California state income tax exclusion for alternative energy system vouchers

A. GENERAL DESCRIPTION. California provides an income tax exclusion in the amount of 100% of gross income from any rebates, vouchers or other

financial incentives for expenses paid or incurred for the purchase or installation of alternative energy systems. *Cal. Rev. & Tax. Cd. §17138.1.*

B. ELIGIBLE TAXPAYERS. Taxpayer corporations and individuals receiving rebates and vouchers from the CA Energy Commission, the Public Utility Commission or a local publicly owned electric utility.

C. QUALIFYING ACTIVITY. Taxpayer must receive rebates and vouchers for the purchase or installation of alternative energy systems. Alternative energy systems include solar or thermal systems; wind energy systems that produce electricity; or fuel cell generating system that produce electricity, as described in the CA Energy Commission's Emerging Renewable Resources Guidebook.

D. INCENTIVE AMOUNTS. The tax exclusion amount is 100% of qualifying gross income.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

06.04 California state income tax deduction for loan interest financing energy efficient products for qualifying residences

A. GENERAL DESCRIPTION. California provides an income tax deduction in the amount of 100% of interest paid on a loan financed through a public utility company to purchase energy efficient equipment and products for residences. *Cal. Rev. & Tax. Cd. §17208.1; Cal. Rev. & Tax. Cd. §17073.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer borrowers of loans financing energy efficient equipment and products.

C. QUALIFYING ACTIVITY. Taxpayer must borrow loans through a public utility company for financing of energy efficient equipment or products. Energy efficient equipment or products are equipment or products certified by a publicly utility company that

will improve the energy efficiency of a qualifying residence on which the product or equipment is installed or applied. Qualifying products and equipment include heating, ventilation, air-conditioning, lighting, solar, advanced metering of energy usage, windows, insulation, zone heating products, gas room heaters certified by the CA Energy Commission, EPA-certified wood fueled stoves, and weatherization systems.

1. Qualifying residence is the principal residence of Taxpayer and 1 other residence of Taxpayer which is selected by Taxpayer.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the interest on a qualifying loan.

1. The tax deduction is not treated as a miscellaneous itemized deduction, subject to the 2% floor under IRC §67(a).
2. The tax deduction is lieu of any tax credit allowable on the purchase of the energy efficient product or equipment.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

06.05 California state sales tax exemption for green manufacturing equipment

A. GENERAL DESCRIPTION. California provides a sales tax exemption in the amount of 100% of the sales tax due on green manufacturing equipment. *Cal. Public Resources. Cd. §26011.8; Cal. Rev. & Tax. Cd. §6010.8; S.B. 71 (2010); Cal. Alternative Energy and Advanced Transp. Fin. Auth., Regs. §§10030 to 10036; S.B. 1128 (2012); A.B. 209 (2022); A.B. 2887 (2022).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of green manufacturing equipment.

1. Taxpayer must be approved by the California Alternative Energy and Advanced Transportation Financing Authority. The Financing Authority will consider: (1) the number of jobs created by the program in

California; (2) the number of businesses that have remained in California or relocated to California as a result of this program; (3) the amount of state and local revenue and economic activity generated by the program; (4) the amount of reduction in greenhouse gases, air pollution, water pollution, or energy consumption.

C. QUALIFYING ACTIVITY. Taxpayer must purchase green manufacturing equipment. Green manufacturing equipment includes alternative source and advanced transportation equipment. Alternative sources are the application of cogeneration technology, the conservation of energy, the use of solar, biomass, recycled feedstock projects, wind, geothermal, hydroelectricity under 30 megawatts, advanced electric distributive generation technology, or any other source of energy, the efficient use of which will reduce the use of fossil and nuclear fuels. Advanced transportation technologies include fuel cells.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS. The statewide annual maximum tax exemption amount is \$150 million. For the 2022, 2023, and 2024 calendar years, an additional \$15 million of tax exemption amount for projects that manufacture, refine, extract, process, or recover lithium.

F. INCENTIVE TIMEFRAME. The tax exemption expires January 1, 2026.

G. MISCELLANEOUS.

06.06 California state sales tax exemption for zero-emission technology transit bus

A. GENERAL DESCRIPTION. California provides a gross receipts sales tax exemption in the amount of 54.31% of the sales tax due on zero-emission technology transit buses. *Cal. Rev. & Tax. Cd. §6377; A.B. 784 (2019); California Department of Tax and Fee Administration Special Notice L-716, 11/01/2019.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer Sellers of zero-emission technology transit buses.

1. Purchasers must be a city, county, or city and county; or a transportation or transit district; or public agencies that provide transit services to the public.

C. QUALIFYING ACTIVITY. Taxpayer must purchase or lease zero-emission technology transit buses. Zero-emission technology transit buses are any zero-emission technology transit bus sold to a city, county, city and county, transportation or transit district, or other public agency that provides transit services to the public that is eligible for the California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project funded by the Air Quality Improvement Program and the Greenhouse Gas Reduction Fund under the State Air Resources Board.

1. Qualifying activity also includes the storage, use, or other consumption in the state of zero-emission technology transit buses.

D. INCENTIVE AMOUNTS. The tax exemption amount is 54.31% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires January 1, 2024.

G. MISCELLANEOUS.

08. Colorado State Tax Incentives for Renewable Energy and Energy Efficiency

08.01 Colorado state property tax credit for renewable energy systems

A. GENERAL DESCRIPTION. Colorado provides an option for counties and municipalities to offer state property tax rebates or credits to residential and commercial property owners who install renewable energy systems on their property. *Colo. Rev. Stat. §31-20-101.3; H.B. 1126 (2009).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners installing renewable energy fixtures on Taxpayer's residential or commercial property.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy property. Renewable energy property is any fixture, product, system, device or interacting group of devices that produce electricity from renewable resources, including, photovoltaic systems, solar thermal systems, small wind systems, biomass systems, or geothermal systems.

D. INCENTIVE AMOUNTS. The tax credit amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

08.02 Colorado state sales and use tax refund for qualifying clean technology

A. GENERAL DESCRIPTION. Colorado provides a sales and use tax refund in the amount of 100% the tax paid on the sale, storage, use or consumption of tangible personal property used in Colorado directly and predominately in the research and development of clean technology. *Colo. Rev. Stat. §39-26-403; H.B. 15-1180 (2015).*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer corporations or individuals

purchasing tangible personal property used in Colorado directly and predominately in the research and development of clean technology.

1. Taxpayer must employ 35 or fewer full-time employees in Colorado.

2. Taxpayer must be based in Colorado or have more than 50% of its workforce in Colorado.

3. Taxpayer must be certified by the CO Department of Revenue.

C. QUALIFYING ACTIVITY. Taxpayer must purchase property used for the research and development of clean technology. Clean technology includes renewable energy generation technologies, such as solar, wind, biofuel, and geothermal energy generation technologies; products used in renewable energy development and generation on a commercial scale; products that enhance the efficient storage, distribution, and consumption of energy; and products that mitigate human impact on the environment, including, but not limited to, products that facilitate the management of greenhouse gases, water, and waste.

D. INCENTIVE AMOUNTS. The tax refund amount is 100% of the sales and use tax paid.

E. INCENTIVE LIMITS. The maximum annual tax refund amount is \$50,000.

1. The tax refund is not refundable if the revenue estimate prepared by the staff of the Legislative Council indicates that the amount of the total General Fund revenues for a particular fiscal year will not be sufficient to increase the total state General Fund appropriations by 6% over such appropriations for the previous fiscal year. Taxpayer who would have otherwise been eligible to claim a refund in a year in which the refund was not allowed may claim the refund in the next calendar year in which the revenue estimate allows the refund.

F. INCENTIVE TIMEFRAME. The tax refund expires December 31, 2017. Taxpayer must apply for the tax refund by April 1 of the calendar year following the calendar year for which the tax refund is claimed.

G. MISCELLANEOUS.

08.03 Colorado state property tax assessment for public utility renewable energy property

A. GENERAL DESCRIPTION. Colorado provides a state property tax assessment valuation in amounts ranging from \$421 - 1,128 per kW for renewable energy facilities. *Colo. Rev. Stat. §39-4-102(e) et seq.; Colo. Rev. Stat. §40-1-102; S.B. 177 (2010).*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer public utility owners of taxable renewable energy facility property.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy facility property. Renewable energy facilities include solar, biomass and wind energy facilities. Solar energy facilities are new facilities that use real and personal property, including solar energy devices, leaseholds, and easements, to generate and deliver to the interconnection meter any source of electrical, thermal, or mechanical energy in excess of 2 megawatts by harnessing the radiant energy of the sun and that is not primarily designed to supply electricity for consumption on site. Biomass energy facilities are new facilities that generate electrical or mechanical energy by combusting biomass or biosolids derived from the treatment of wastewater and not designed primarily to supply electricity on site. Wind energy facilities are new facilities that use real and personal property, including one or more wind turbines, leaseholds, and easements, to generate and deliver to the interconnection meter any source of electrical or mechanical energy in excess of 2 megawatts by harnessing the kinetic energy of the wind.

1. Taxpayer must provide renewable energy facility's current power purchase agreement to the CO Division of Property Taxation each year.
2. Qualifying solar energy devices include a solar collector or other device or a structural design feature of a structure which provides for the collection of sunlight and which comprises part of a system for the conversion

of the sun's radiant energy into thermal, chemical, mechanical, or electrical energy.

D. INCENTIVE AMOUNTS. The tax assessment amount is determined by the Colorado Division of Property Taxation. For solar energy facilities, the tax assessment amount is determined by using a separate calculation method based on cost, the revenue generated from electricity sales, and a tax factor multiplier. For wind energy facilities, the tax assessment amount is determined by using a separate calculation method based on cost, the revenue generated from electricity sales, and a tax factor multiplier.

1. The nonrenewable facility value was determined to be \$1,128 per kilowatt (KW) for renewable energy projects up to 2 megawatts (MW), and \$421 per kW for systems over 100 MW, with other values for various size ranges between 2 MW and 100 MW. (2009)

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

08.04 Colorado state property tax financing for clean energy finance districts

A. GENERAL DESCRIPTION. Colorado provides property tax financing options for local governments funding eligible renewable-energy projects or energy-efficiency improvements by property owners. *Colo. Rev. Stat. §30-11-107.3; H.B. 1350 (2008).*

B. ELIGIBLE TAXPAYERS. Taxpayer owners of taxable eligible renewable-energy projects or energy-efficiency improvements.

1. Taxpayer must be certified by the CO Clean Energy Development Authority which is authorized to establish Clean Energy Finance Districts in the state.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance capital improvements for energy efficiency retrofits and the installation of renewable energy fixtures. Renewable energy fixtures include solar water heating, solar thermal-electric,

photovoltaics, wind, biomass, hydroelectric, geothermal-electric, biodiesel and ethanol, fuel cells that do not use fossil fuels, insulation, windows and doors, automatic energy control systems, HVAC systems, caulking and weather stripping, lighting, daylighting, energy-recovery systems, and geothermal heat pumps.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

08.05 Colorado state income tax credit for innovative motor vehicles

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in various amounts for the conversion or the purchase of an alternative fuel, electric or hybrid vehicle. *Colo. Rev. Stat. §39-22-516.7; Tax Professionals TaxInfoEmail post, Colo. Dept. Rev., 03/18/2016; H.B. 1332 (2016); Colorado FYI Tax Publication No. Income 69, 03/01/2017; Colo. Code Regs. 39-22-516; Colorado FYI Tax Publication No. Income 69, 01/01/2018, released 04/09/2018; Colorado FYI Tax Publication No. Income 69, 12/01/2019; H.B. 1272 (2023).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners and lessees of alternative fuel, electric or hybrid vehicles.

1. Taxpayer may assign the tax credit to a financing entity.
2. In case of property jointly owned, purchase or leased by multiple taxpayers or by a partnership, S corporation, or other similar pass-through entity, the credit may be allocated to the respective owners, partners, or shareholders in any manner the owners, partnership, or S corporation elect.
3. Before January 1, 2024, Taxpayer may be a person or a political subdivision of the state that is exempt from taxation under section 39-22-112(1).
4. Taxpayer may assign the tax credit to a financing entity or to a motor vehicle dealer.

C. QUALIFYING ACTIVITY. Taxpayer must purchase, lease or convert an existing vehicle to an alternative fuel, electric or hybrid vehicle. Alternative fuel is compressed natural gas, propane, ethanol, or any mixture of ethanol containing 85% or more ethanol by volume with gasoline or other fuels, electricity, liquefied petroleum gas, and other fuels such as clean diesel or reformulated gasoline as long as the fuels make comparable reductions in carbon monoxide emissions and brown cloud pollutants as determined by the Air Quality Control CO Commission. Hybrid vehicle is a motor vehicle with a hybrid propulsion system that uses an alternative fuel by operating both on an alternative fuel, including electricity, and a traditional fuel.

1. Qualifying plug-in hybrid electric vehicle is an original equipment manufacturer vehicle that can operate solely on electric power and can recharge its battery from both an on-board generation source and an off-board electricity source, has a gross vehicle weight rating that does not exceed 8,500 lbs, and has a battery capacity of not less than 4 KW hours.
2. Qualifying conversions must increase city fuel economy by at least 75% over comparable non-hybrid version vehicles.
3. Qualifying vehicles may be a used vehicle, if Taxpayer provides documentation that a previous owner did not claim the tax credit.
4. Taxpayer may purchase, lease or convert more than one qualifying vehicle.

D. INCENTIVE AMOUNTS. The tax credit amount depends on the tax year.

1. For 2023-2024, the tax credit amount is \$5,000. For 2025, the tax credit amount is \$3,500. For 2026, the tax credit amount is \$1,500. For 2027, the tax credit amount is \$1,000. For 2028, the tax credit amount is \$500.
2. For 2024-2026, an additional tax credit amount of \$600 may be claimed by a financing entity or motor vehicle dealer when Taxpayer assigns the tax credit.
3. An additional tax credit amount of \$2,500 may be claimed for vehicles that with a manufacturer's suggested retail price of below \$35,000.

4. For Category 7 light-duty, medium-duty or heavy duty trucks: For 2024, the tax credit amount is \$5,000-12,000. For 2025, the tax credit amount is \$3,500-12,000. For 2026, the tax credit amount is \$1,500-8,000. For 2027-2032, the tax credit amount is \$1,000-8,000.

E. INCENTIVE LIMITS. No tax credit is allowed for vehicles that exceed a manufacturer's suggested retail price of \$80,000.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2028. Unused tax credit may be refunded.

G. MISCELLANEOUS.

08.06 Colorado state sales and use tax exemption for clean fuel vehicle property

A. GENERAL DESCRIPTION. Colorado provides a sales and use tax exemption in the amount of 100% of the tax on the sale, storage, use, or consumption of a clean fuel motor vehicle property. *Colo. Rev. Stat. §39-26-719; Colo. Rev. Stat. §39-22-516; Colo. Dept. of Rev., FYI Income 9, 12/09; FYI Tax Publication Sales 91 (2012); FYI Tax Publication Sales 91 (2013).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of clean fuel motor vehicle property.

C. QUALIFYING ACTIVITY. Taxpayer must purchase clean fuel motor vehicle property. Clean fuel motor vehicle property is motor vehicles, parts used for converting and power sources certified by the US Environmental Protection Agency or any state as provided in the Federal Clean Air Act as meeting an emission standard equal to or more stringent than the low-emitting vehicle emission standard. Motor vehicle is any self-propelled vehicle required to be licensed or subject to licensing for operation upon the highways, including a vehicle that uses a hybrid propulsion system. Parts used for converting is the wiring, fuel lines, engine coolant system, fuel storage containers, fuel control system, and other components associated with reducing the emissions characteristics of an engine or motor.

Power source is the engine or motor and associated wiring, fuel lines, engine coolant system, fuel storage containers, and miscellaneous components.

1. Qualifying clean fuel motor vehicle, power source, or parts used for converting the power source must be certified as meeting an emission standard equal to or more stringent than the low-emitting vehicle emission standard.

2. Qualifying clean fuel motor vehicle must have a gross vehicle weight rating greater than 10,000 pounds.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

08.07 Colorado state property tax exemption for leased residential solar electric generation facilities

A. GENERAL DESCRIPTION. Colorado provides a state property tax exemption for residential solar electric generation facilities. *Colo. Rev. Stat. §39-3-102; S.B. 1267 (2010).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer lessees of residential solar electric generation facility property.

C. QUALIFYING ACTIVITY. Taxpayer must lease residential solar electric generation facility property. A residential solar electric generation facility is a facility located on residential real property, owned by a person other than the owner of the residential real property, installed on the customer's side of the meter, used to produce electricity from solar energy primarily for use in the residential improvements located on the real property, and have a production capacity of no more than 100 kilowatts.

1. Residential solar electric generation facilities do not include facilities used to

produce income for the owner of the real property. Rebates, offsets, credits, and net metering reimbursements will not constitute the production of income.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% the value of the residential solar electric generation facility property.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

08.08 Colorado state sales and use tax exemption for solar thermal, biogas production and wind systems

A. GENERAL DESCRIPTION. Colorado provides a sales and use tax exemption in the amount of 100% of the tax on components of solar thermal, biogas production and wind systems. *Colo. Rev. Stat. §39-26-724; Colorado FYI Tax Publication No. Sales 83, 06/01/2014; Colorado FYI Tax Publication No. Sales 10, 03/01/2014; Colorado General Information Letter, No. GIL-14-006; Sales & Use Tax Topics: Renewable Energy Components, Colo. Dept. Rev., 09/01/2021.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasing components of solar thermal, biogas production and wind systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase components of solar thermal, biogas production or wind systems. A solar thermal system is a system whose primary purpose is to use energy from the sun to produce heat or cold for heating or cooling a residential or commercial building, heating or cooling water, or any industrial, commercial, or manufacturing process. A biogas production systems is a system for the production of biogas for sale to a power generator, as a transportation fuel, or as renewable natural gas.

1. Components of solar thermal systems include, but are not limited to: solar collectors, including flat-plate collectors, evacuated tube

collectors, solar air collectors, and concentrating solar thermal collectors; tanks for the storage of gases or liquids that have been heated or cooled by solar-generated energy; pumps, impellers, and fans for the circulation of gases or liquids that have been heated or cooled by solar-generated energy; heat exchangers used to transfer solar-generated energy; support structures, racks, and foundations for any components listed above; and any other system components such as piping, valves, gauges, fittings, insulation, and controls for any components listed above.

2. Components of a biogas production system include, but are not limited to, anaerobic digestion systems, biogas upgrade systems, digested solids systems. Qualifying biogas does not include national gas.

3. Components of wind systems include, but are not limited to: wind turbines, rotors and blades, generating equipment, supporting structures or racks, inverters, towers and foundations, balance of system components such as wiring, control systems, switchgears, and generator step-up transformers.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax paid.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption for solar thermal systems expires June 30, 2017. The tax exemption for biogas production systems expires June 30, 2019.

G. MISCELLANEOUS.

08.09 Colorado state property tax exemption for wind energy equipment

A. GENERAL DESCRIPTION. Colorado provides a property tax exemption for equipment used in the development of wind energy. *Colo. Rev. Stat. §38-30.7-105; Colo. Rev. Stat. §39-3-118.5.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of equipment used in the development of wind energy.

C. QUALIFYING ACTIVITY. Taxpayer must own equipment used in the development of wind energy.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% the value of equipment used in the development of wind energy before such equipment is first used in the business.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption applies after the acquisition and before the first used in the business.

G. MISCELLANEOUS.

08.10 Colorado state property tax exemption for community solar gardens

A. GENERAL DESCRIPTION. Colorado provides a property tax exemption for community solar gardens in the amount of the capacity that is attributable to residential, governmental or nonprofit subscribers. *Colo. Rev. Stat. §39-3-118.7; H.B. 1101 (2014)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of community solar garden property.

1. Taxpayer may be a qualifying retail utility or any other for-profit or nonprofit entity or organization, including a subscriber organization that contracts to sell the output from the community solar garden to the qualifying retail utility.

C. QUALIFYING ACTIVITY. Taxpayer must own community solar garden property. A community solar garden is a solar electric generation facility with a nameplate rating of two megawatts or less that is located in or near a community served by a qualifying retail utility where the beneficial use of the electricity generated by the facility belongs to the subscribers to the community solar garden.

1. Community solar gardens must have at least 10 subscribers.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the percentage of alternating current electricity capacity of a community solar garden property attributable to residential, or governmental subscribers, or to subscribers that are organizations that have been granted property tax exemptions.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption is effective January 1, 2015. The tax exemption expires December 31, 2020.

G. MISCELLANEOUS.

08.11 Colorado state income tax credit for enterprise zone property investment

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of 3% the total qualified investment in IRC Section 38 property located in an enterprise zone. *Colo. Rev. Stat. §39-30-104; Colo. Code Regs. §39-30-104(1); Colorado FYI Tax Publication No. Income 11, 12/01/2011; H.B. 1219 (2015); PLR-18-002, 02/27/2018*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers investors in IRC Section 38 property.

C. QUALIFYING ACTIVITY. Taxpayer must make a renewable energy investment qualifying for IRC Section 38 property in an enterprise zone. An renewable energy investment is an investment that qualifies for the IRC Section 38 tax credit for solar thermal electric, photovoltaic, landfill gas, wind, biomass, hydroelectric, geothermal electric, recycled energy, anaerobic digestion, or renewable fuel cell projects.

D. INCENTIVE AMOUNTS. The tax credit amount is 3% of the total qualified investment in IRC Section 38 property.

E. INCENTIVE LIMITS. The maximum tax credit amount is the lesser of: (i) \$750,000 plus any investment tax credit carryovers previously allowed; and (ii) the sum of \$5,000 of Taxpayer's

actual tax liability for the tax year plus 50% of any portion of that tax liability that exceeds \$5,000.

1. CO Economic Development Commission may permit Taxpayer to claim a credit in excess of that limitation for the tax year in which the total qualified investment is made.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried over 22 years. For tax years starting on or before December 31, 2020, the tax credit may be elected to be refundable up to 80%, up to \$750,000 annually, and forfeiting the remaining 20%.

G. MISCELLANEOUS.

08.12 Colorado state property tax exemption for agrivoltaics

A. GENERAL DESCRIPTION. Colorado provides a property tax exemption for part of a solar energy generating system that is used for agrivoltaics. *Colo. Rev. Stat. §39-3-122; S.B. 92 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of equipment for part of a solar energy generating system that is used for agrivoltaic.

C. QUALIFYING ACTIVITY. Taxpayer must own equipment for part of a solar energy generating system that is used for agrivoltaics. Agrivoltaics is one or more solar energy generation facilities directly integrated with agricultural activities, including crop production, grazing, animal husbandry, apiaries, cover cropping to improve soil health or insect habitat benefits or carbon sequestration, or production of agricultural commodities for sale in the retail or wholesale market.

1. Qualifying equipment must: (1) incorporate novel designs, technologies, or configurations that significantly expand the potential for agricultural activities; (2) be constructed in a manner that minimizes soil compaction underneath and in between panels; and (3) be constructed to incorporate design strategies that are planned with the intent to minimize the negative environmental

impact of photovoltaic energy production facilities.

2. Novel designs, technologies, or configurations that significantly expand the potential for agricultural activities include: (I) Elevating the bottom edge height of the panels at least six feet above the ground; (II) Utilizing translucent panels or panels with tubular or other innovative panel geometry that supports agrivoltaics; (III) Incorporating alternative solar tracking algorithms that are tailored to optimize vegetative growth; (IV) Incorporating extended row or panel spacing in a manner that enables agricultural activities; (V) Incorporating modified wire management systems that support livestock, including raising, lowering, or burying wiring; (VI) Incorporating innovative photovoltaic racking structures, including tensioned wire racking systems, suspension-based systems, or other dynamic photovoltaic racking systems or arrangements; (VII) Incorporating agricultural infrastructure that is typically found on a farm or ranch operation, such as agricultural fences, water sources and distribution, water troughs and tanks, corrals, livestock pens, or produce handling equipment; or (VIII) Incorporating agricultural structures that are typically found on an agricultural operation, such as a tractor shed, a barn, or structures for equipment storage, produce washing, storage, processing, or chilling and packaging.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% the value of equipment for part of a solar energy generating system that is used for agrivoltaics.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption applies after January 1, 2024. The tax exemption expires January 2, 2029.

G. MISCELLANEOUS.

08.13 Colorado state sales and property tax exemption for heat pump systems

A. **GENERAL DESCRIPTION.** Colorado provides a sales and property tax exemption for heat pump systems. *Colo. Rev. Stat. §39-26-732; H.B. 1272 (2023).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers and owners of heat pump systems and heat pump water heaters.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase or own heat pump systems and heat pump water heaters that are used in commercial or residential buildings. Heat pump system is an air-source heat pump system, ground-source heat pump system, water-source heat pump system, combined water-source and air-source heat pump system, or variable refrigerant flow heat pump system. Heat pump water heater is an electric water heater that uses heat pump technology to transfer heat from the surrounding air to water in a tank and that is certified pursuant to the federal environmental protection agency's energy star program. Heat pump water heater may include: (A) An electric resistance heating element; and (B) Mechanical and electrical equipment central to the operation of a heat pump water heater, including an upgraded electrical panel if necessary.

1. Air-source heat pump system is a system that: (A) Is certified pursuant to the federal environmental protection agency's energy star program; (B) Has a variable speed compressor; (C) Is listed in the air-conditioning, heating, and refrigeration institute directory of certified product performance as a matched system; and (D) Is installed by a licensed contractor, plumber, or employee of a gas utility in accordance with the national electrical code and the manufacturer's specifications. Air-source heat pump system may include an electric resistance heating element or a dual fuel system for supplemental heat so long as: (A) The air-source heat pump is used as the primary source of a building's heat and is designed to supply at least eighty percent of total annual heating for the building; (B) The system is capable of distributing produced heat to all conditioned areas of the building; (C) The dual fuel system has a furnace with an annual fuel utilization efficiency rating of ninety percent or higher; (D) All piping for a

split system is installed by technicians certified to the NITC R78 brazing procedure; and (E) The system is installed by technicians that are trained on the safe handling of flammable refrigerants. Air-source heat pump system includes mechanical and electrical equipment central to the operation of an air-source heat pump, including an upgraded electrical panel if necessary.

2. Ground-source heat pump system is a system that: (A) Is certified to the international organization for standardization's latest standards; (B) Is installed by a licensed contractor, plumber, or employee of a gas utility in accordance with the national electric code and manufacturer's specifications; (C) Conforms to all applicable municipal, state, and federal codes, standards, regulations, and certifications; (D) Has blowers that are variable speed, high-efficiency motors that meet or exceed efficiency levels listed in the national electrical manufacturers association MG1-1993 publication; and (E) Complies with all state and local drinking water guidelines and regulations and public water system requirements. Ground-source heat pump system may include a dual fuel system so long as: (A) The ground-source heat pump is used as the primary source of a building's heat and is designed to supply at least eighty percent of total annual heating for the building; (B) The system is capable of distributing produced heat to all conditioned areas of the building; (C) The furnace has an annual fuel utilization efficiency rating of ninety percent or higher; (D) All piping for a split system is installed by technicians certified to the NITC R78 brazing procedure; and (E) The system is installed by technicians that are trained on the safe handling of flammable refrigerants. Ground-source heat pump system includes mechanical and electrical equipment central to the operation of a ground-source heat pump, including an upgraded electrical panel if necessary. Ground-source heat pump system may include a heat exchanger for water heating.

3. Water-source heat pump system is a system that: (A) Is certified to the international organization for standardization's latest standards; (B) Is installed by a licensed contractor, plumber, or employee of a gas or

wastewater utility in accordance with the national electric code and manufacturer's specifications; (C) Conforms to all applicable municipal, state, and federal codes, standards, regulations, and certifications; (D) Has blowers that are variable speed, high-efficiency motors that meet or exceed efficiency levels listed in the national electrical manufacturers association MG1–1993 publication; and (E) Complies with all state and local drinking water guidelines and regulations and public water system and wastewater system requirements. Water-source heat pump system includes a dual fuel system so long as: (A) The water-source heat pump is used as the primary source of a building's heat and is designed to supply at least eighty percent of the total annual heating for the building; (B) The system is capable of distributing produced heat to all conditioned areas of the building; (C) The furnace has an annual fuel utilization efficiency rating of ninety percent or higher; (D) All piping for a split system is installed by technicians certified to the NITC R78 brazing procedure; and (E) The system is installed by technicians who are trained in the safe handling of flammable refrigerants. Water-source heat pump system includes mechanical and electrical equipment central to the operation of a water-source heat pump.

4. Variable refrigerant flow heat pump system is a system that: (A) Is certified to the international organization for standardization's latest standards; (B) Is installed by a licensed contractor, plumber, or employee of a gas or wastewater utility in accordance with the national electric code and manufacturer's specifications; (C) Conforms to all applicable municipal, state, and federal codes, standards, regulations, and certifications; (D) Has blowers that are variable speed, high-efficiency motors that meet or exceed efficiency levels listed in the national electrical manufacturers association MG1–1993 publication; and (E) Complies with all state and local drinking water guidelines and regulations and public water system and wastewater system requirements. Variable refrigerant flow system may include a dual fuel system so long as: (A) The variable refrigerant flow system is used as the primary source of

a building's heat and is designed to supply at least eighty percent of the total annual heating for the building; (B) The system is capable of distributing produced heat to all conditioned areas of the building; (C) The furnace has an annual fuel utilization efficiency rating of ninety percent or higher; (D) All piping for a split system is installed by technicians certified to the NITC R78 brazing procedure; and (E) The system is installed by technicians who are trained in the safe handling of flammable refrigerants. Variable refrigerant flow system includes mechanical and electrical equipment central to the operation of a variable refrigerant flow system.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% the value of heat pump systems and heat pump water heaters and 100% of the sales tax on the heat pump systems and heat pump water heaters.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2023.

G. MISCELLANEOUS.

08.14 Colorado state income tax credit for heat pump systems

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of 10% of the cost of heat pump system or heat pump water system installed. *Colo. Rev. Stat. §39-22-545; H.B. 1272 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers and installers of heat pump systems or heat pump water systems.

1. Taxpayer Purchaser may assign the tax credit to Seller.

C. QUALIFYING ACTIVITY. Taxpayer must install a residential or commercial heat pump system into real property in this state or install a residential or commercial heat pump water heater into real property. Heat pump system is an air-source heat pump system, ground-source heat pump system,

water-source heat pump system, or variable refrigerant flow heat pump system. Heat pump water heater is an electric water heater that uses heat pump technology to transfer heat from the surrounding air to water in a tank and that is certified pursuant to the federal environmental protection agency's energy star program.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the purchase price of the qualifying equipment.

1. Purchase price is the amount actually paid by the purchaser for the tangible personal property installed, including charges for sales tax and freight, but not including any charges for assembly, installation, or other construction services, or permit fees.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2023. The tax credit may not be carried forward and shall be refundable.

G. MISCELLANEOUS.

08.15 Colorado state income tax credit for industrial clean energy

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of 30-50% of an industrial study and capital costs of certified greenhouse gas emissions reduction improvements in qualified industrial facilities. *Colo. Rev. Stat. §39-22-551; H.B. 1281 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of a qualified industrial facility.

1. Taxpayer must be certified by the Colorado Energy Office.

2. Industrial facility is any real property in the state, and the machinery or equipment on the real property, where the principal trade or business activity is the mechanical or chemical transformation of organic or inorganic substances into new products, characteristically using power-driven machines and materials handling equipment.

3. Industrial facility does not include a landfill, an electric utility subject to regulation by the public utilities commission, or an upstream or mid-stream oil and gas operation.

C. QUALIFYING ACTIVITY. Taxpayer must invest in an industrial study and certified greenhouse gas emissions reduction improvements. Industrial study is an energy and emissions audit, a feasibility study, or a front-end engineering design study. Greenhouse gas emissions reduction improvements are one or more of the following equipment purchases, improvements, and retrofits: (I) Replacing fossil-fuel-powered off-road equipment such as forklifts and construction equipment with electric equipment; (II) Replacing fossil-fuel-fired equipment for space or water heating or industrial process heating with high-efficiency electric equipment; (III) Replacing fossil-fuel-fired or compressed air-driven industrial process equipment with high-efficiency electric equipment; (IV) Placing in service advanced refrigeration systems that reduce greenhouse gas emissions; (V) Placing in service electric charging infrastructure for electric vehicles at an industrial facility; (VI) Placing in service waste heat recovery technology; (VII) Upgrading or implementing energy monitoring systems; (VIII) Installing high efficiency electric pumps, motors, compressors, and lighting; (IX) Installing variable volume or load efficiency equipment; (X) Installing carbon capture equipment which provides supporting information that demonstrates a net reduction in greenhouse gas emissions when accounting for energy-related emissions released to operate the carbon capture equipment and provides a permanent durable carbon storage plan; except that the captured carbon may not be used for enhanced oil recovery; (XI) Installing equipment used for collection of biomethane; (XII) Replacing fossil-fuel-fired equipment with hydrogen fueled equipment; (XIII) Installing hydrogen fueling stations for fuel cell vehicles at industrial facilities; (XIV) Converting fossil-fuel-powered pumps, compressors, and controllers to compressed air-driven or electric-driven pumps, compressors, and controllers; (XV) Installing onsite energy storage; (XVI) Installing or upgrading to utility service feed equipment to directly support the implementation of any of the electrification improvements set forth; (XVII) Placing in service carbon management systems including direct air capture and other forms of

carbon dioxide removal; (XVIII) Material substitutions within industrial processes to reduce industrial process greenhouse gas emissions by a minimum of fifteen percent when compared to existing production practices; and (XIX) Other similar purchases and improvements identified and set forth in the standards developed by the Colorado Energy Office that result in at least a twenty percent reduction in greenhouse gas emissions when compared to current technology, equipment, or production processes being deployed by the owner.

1. The qualifying certified greenhouse gas emissions reduction improvements must be certified by the Colorado Energy Office.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the investment in an industrial study and certified greenhouse gas emissions reduction improvements. The Colorado Energy Office may on a case by case basis determine that the applicable percentage may be increased to an amount not to exceed 50% upon request by Taxpayer owner for greenhouse gas emissions reduction improvements that have significant potential to significantly advance reductions in greenhouse gas emissions but may not be in the commercial stage of development.

E. INCENTIVE LIMITS. The maximum tax credit amount for an industrial study is \$1,000,000. The maximum tax credit amount for certified greenhouse gas emissions reduction improvements is \$5,000,000. The statewide maximum tax credit amount for 2024-2028 is \$8,000,000. statewide maximum tax credit amount for 2028-2032 is \$12,000,000.

F. INCENTIVE TIMEFRAME. The tax credit applies after January 1, 2024. The tax credit expires December 31, 2032. The tax credit may not be carried forward and must be refunded.

G. MISCELLANEOUS. Taxpayer that claims the tax credit cannot claim the tax credit allowed by section 39-30-104 with respect to the greenhouse gas emissions reduction improvements or receive grant money under the industrial and manufacturing operations clean air grant program created in section 24-38.5-116(3)(a).

08.16 Colorado state income tax credit for geothermal energy projects

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of 30-50% of the costs of geothermal energy projects. *Colo. Rev. Stat. §39-22-552; H.B. 1281 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of geothermal energy projects.

1. Taxpayer must be certified by the Colorado Energy Office.

C. QUALIFYING ACTIVITY. Taxpayer must invest in approved geothermal energy projects. Industrial study is an energy and emissions audit, a feasibility study, or a front-end engineering design study. Geothermal energy project is a project in the state that is intended to evaluate and develop a geothermal resource for the purpose of electricity production, that meets the standards developed pursuant to subsection (5) of this section, and that involves any of the following:(I) The exploration and development of wells; (II) Drilling exploration and confirmation wells; (III) The use of any heat extracted with produced fluids in an oil and gas operation if the heat is only utilized to reduce emissions from the operation in the same location as the well from which it was produced and would otherwise not be economically feasible as a stand-alone geothermal energy project; (IV) Drilling injection wells; (V) Flow testing; (VI) Reservoir engineering; (VII) Geothermal energy storage; (VIII) Coproduction of geothermal energy; or (IX) Power generation equipment.

1. The qualifying certified geothermal energy project must be certified by the Colorado Energy Office.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the investment in an approved geothermal energy project. The Colorado Energy Office may on a case by case basis determine that the applicable percentage may be increased to an amount not to exceed 50% for a geothermal energy project that has significant potential to result in geothermal electricity production or

technological demonstration of geothermal electricity production.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$5 million. The statewide maximum tax credit for all years is \$35 million.

F. INCENTIVE TIMEFRAME. The tax credit applies after January 1, 2024. The tax credit expires December 31, 2032. The tax credit may not be carried forward and must be refunded.

G. MISCELLANEOUS. Taxpayer that claims the tax credit cannot claim the tax credit allowed by section 39-30-104 for the same project.

08.17 Colorado state income tax credit for geothermal electricity generation projects

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of \$0.003/KW of geothermal electricity produced. *Colo. Rev. Stat. §39-22-553; H.B. 1281 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers of geothermal electricity.

1. Taxpayer must be certified by the Colorado Energy Office.

C. QUALIFYING ACTIVITY. Taxpayer must produce geothermal electricity.

1. The qualifying certified geothermal energy project must be certified by the Colorado Energy Office.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.003 per KWh of geothermal electricity that is produced.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$1 million.

F. INCENTIVE TIMEFRAME. The tax credit applies after January 1, 2024. The tax credit expires December 31, 2032. The tax credit may not be carried forward and must be refunded.

G. MISCELLANEOUS. Taxpayer that claims the tax credit cannot claim the tax credit allowed by section 39-30-104 for the same project.

08.18 Colorado state income tax credit for heat pump technology and thermal energy networks

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of \$250 – 3,000 heat pump technology and thermal energy networks. *Colo. Rev. Stat. §39-22-554; H.B. 1281 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer installers of heat pump technology and developers of thermal energy networks. Except for a Taxpayer who installs their own heat pump technology or developers their own thermal energy network, a Taxpayer must provide a discount from the amount charged for the installation of heat pump technology or a thermal energy network in an amount equal to the amount of the tax credit minus the applicable percentage of the tax credit, and shall show the discount as a separate item on the receipt or invoice.

1. Taxpayer must be certified by the Colorado Energy Office. Taxpayer must demonstrate that the Taxpayer and any of its employees who will be installing heat pump technology or thermal energy networks: (I) Are licensed as required by the state; (II) Are knowledgeable of the relevant system requirements; (III) Will install heat pump technology and thermal energy networks in accordance with the national electric code and manufacturer's specifications; (IV) Will, where applicable, ensure that all piping for a split system is installed by technicians certified to the NITC R78 brazing procedure and trained in the safe handling of flammable refrigerants; and (V) Will meet any additional standards established by the office in its guidelines, including, if applicable, the 2021 international energy conservation code.

2. Applicable percentage is a percentage annually established by the Colorado Energy Office.

C. QUALIFYING ACTIVITY. Taxpayer must install heat pump technology in a building or on a campus, or develop, through purchase and installation of necessary equipment, a thermal energy network. Heat pump technology is an air-source heat pump system, ground-source heat pump system, water-source heat pump system, variable refrigerant flow heat pump system, any combination of these systems, or a heat pump water heater. Thermal energy network is: (I) all real estate, fixtures, and personal property that are operated, owned, used, or intended to be used for, in connection with or to facilitate, a distribution infrastructure project that supplies thermal energy to two or more buildings that are not a campus and that assists in reducing greenhouse gas emissions in the state; (II) Consists of pipe loops between multiple buildings and energy sources carrying piped, noncombustible fluids at the desired thermal temperature; (III) Includes a network that can be used for heating, cooling, and other building services; and (IV) May also be known as a geothermal exchange district, networked geothermal system, geoexchange system, geogrid system, community geothermal heating and cooling district, or geothermal heating district. Thermal energy is piped, noncombustible fluids used for adding or removing heat from buildings for the purpose of efficient building temperature control and domestic hot water, including space heating and cooling and refrigeration. Thermal energy includes methods of exchanging the piped, noncombustible fluids through the ground, wastewater treatment facilities, or other sources that achieve desired fluid temperatures; except that any source of thermal energy for this purpose must: (A) Not cause incremental greenhouse gas emissions or rely on increased, long-term combustion of fossil fuels; and (B) Be evaluated by the Colorado Office of Energy to protect against increased emissions of harmful co-pollutants, negative impacts to communities including to disproportionately impacted communities, as defined in section 24-4-109(2)(b)(II), and the risk of stranded assets, if the thermal energy is from any industrial source including a system for which the primary purpose is to generate electricity, including any process involving engine-driven generation.

1. The qualifying project must be certified by the Colorado Energy Office.

2. Air-source heat pump system is a system that: (A) Is certified pursuant to the federal environmental protection agency's energy star program; (B) Has a variable speed compressor; and (C) Is listed in the air-conditioning, heating, and refrigeration institute directory of certified product performance as a matched system. Air-source heat pump system may include supplemental heat so long as: (A) The air-source heat pump is used as the primary source of a building's heat and is designed to supply at least eighty percent of total annual heating for the building; and (B) The system is capable of distributing produced heat to all conditioned areas of the building. Air-source heat pump system includes mechanical and electrical equipment central to the operation of an air-source heat pump, including an upgraded electrical panel if necessary.

3. Ground-source heat pump system is a system that: (A) Is certified pursuant to the federal environmental protection agency's energy star program; (B) Conforms to all applicable municipal, state, and federal codes, standards, regulations, and certifications; (C) Has blowers that are variable speed, high-efficiency motors that meet or exceed efficiency levels listed in the national electrical manufacturers association MG1-1993 publication; and (D) Complies with all state and local drinking water guidelines and regulations and public water system requirements. Ground-source heat pump system may include supplemental heat so long as: (A) The ground-source heat pump is used as the primary source of a building's heat and is designed to supply at least eighty percent of total annual heating for the building; and (B) The system is capable of distributing produced heat to all conditioned areas of the building. Ground-source heat pump system includes mechanical and electrical equipment central to the operation of a ground-source heat pump, including an upgraded electrical panel if necessary. Ground-source heat pump system may include a heat exchanger for water heating.

4. Variable refrigerant flow heat pump system is a system that: (A) Is certified pursuant to the federal environmental protection agency's energy star program; (B)

Conforms to all applicable municipal, state, and federal codes, standards, regulations, and certifications; (C) Has blowers that are variable speed, high-efficiency motors that meet or exceed efficiency levels listed in the national electrical manufacturers association MGI-1993 publication; and (D) Complies with all state and local drinking water guidelines and regulations and public water system and wastewater system requirements. Variable refrigerant flow system may include supplemental heat so long as: (A) The variable refrigerant flow system is used as the primary source of a building's heat and is designed to supply at least eighty percent of the total annual heating for the building; and (B) The system is capable of distributing produced heat to all conditioned areas of the building. Variable refrigerant flow system includes mechanical and electrical equipment central to the operation of a variable refrigerant flow system.

5. Water-source heat pump system is a system that: (A) Is certified pursuant to the federal environmental protection agency's energy star program; (B) Conforms to all applicable municipal, state, and federal codes, standards, regulations, and certifications; (C) Has blowers that are variable speed, high-efficiency motors that meet or exceed efficiency levels listed in the national electrical manufacturers association MG1-1993 publication; and (D) Complies with all state and local drinking water guidelines and regulations and public water system and wastewater system requirements. Water-source heat pump system may include supplemental heat so long as: (A) The water-source heat pump is used as the primary source of a building's heat and is designed to supply at least eighty percent of the total annual heating for the building; and (B) The system is capable of distributing produced heat to all conditioned areas of the building. Water-source heat pump system includes mechanical and electrical equipment central to the operation of a water-source heat pump.

D. INCENTIVE AMOUNTS. The tax credit amount is \$1,500 for 2024-2025, \$1,000 for 2026-2028 and \$500 for 2029-2032, for installation of an air-source heat pump system or a variable refrigerant

flow heat system. The tax credit amount is \$3,000 for 2024-2025, \$2,000 for 2026-2028 and \$1000 for 2029-2032, for installation of a ground-source heat pump system, water-source heat pump system, a combined air-source and ground-source heat pump system, a combined water-source and ground-source heat pump system, a combined variable refrigerant flow and ground-source heat pump system, or a combined variable refrigerant flow and water-source heat pump system. The tax credit amount is \$500 for 2024-2025 and \$250 for 2026-2032, for installation of a heat pump water heater.

1. For heat pump technology installed at a multifamily property, unless the heat pump technology is installed for an individual unit by the Taxpayer for use by the occupant of the individual unit, the amount of the tax credit is the amount of the tax credit permitted multiplied by the number of units in the multifamily property that will utilize the heat pump technology.

2. For a nonresidential building, the amount of the tax credit is the amount of the tax credit permitted multiplied by the number of increments of four tons of heating capacity up to a maximum of one hundred tons.

3. For a thermal energy network or for a campus, the amount of the tax credit is the amount of the tax credit multiplied by the total number of residential buildings and multifamily property units networked in a single system, plus the credit determined for each nonresidential building networked in the system.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit applies after January 1, 2024. The tax credit expires December 31, 2032. The tax credit may not be carried forward and must be refunded.

G. MISCELLANEOUS.

08.19 Colorado state income tax credit for electric bicycles

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of \$500 for electric

bicycles. *Colo. Rev. Stat. §39-22-555; H.B. 1281 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer retailers of electric bicycles. Taxpayer retailer must provide to the qualified purchaser at the time of the retail sale of the new qualified electric bicycle a discount on the purchase price of the qualified electric bicycle equal to the lesser of four hundred fifty dollars or the purchase price and shall show the discount as a separate item on the receipt or invoice provided to the qualified purchaser.

1. Taxpayer must be certified by the Colorado Energy Office as a qualified retailer. Qualified retailer is a retailer that sells qualified electric bicycles and: (I) Holds a state sales tax license; (II) Has timely filed a monthly sales tax return showing a tax liability for at least twelve months; (III) Has paid the taxes due on the monthly sales tax return; and (IV) Has registered with the department.
2. Qualified purchaser is a person who is a resident of the state and who has not previously purchased a qualified electric bicycle that was discounted by a qualified retailer claiming the tax credit for the retail sale in the same income tax year.

C. QUALIFYING ACTIVITY. Taxpayer must sell electric bicycles at retail to a qualified purchaser. An electric bicycle is a vehicle having two tandem wheels or two parallel wheels and one forward wheel, fully operable pedals, an electric motor not exceeding seven hundred fifty watts of power, and a top motor-powered speed of twenty miles per hour. Electric bicycle includes an electric adaptive bicycle.

1. The elect bicycles must be certified by the Colorado Energy Office.

D. INCENTIVE AMOUNTS. The tax credit amount is \$500 for each retail sale of new qualified electric bicycles.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$1 million.

F. INCENTIVE TIMEFRAME. The tax credit applies after April 1, 2024. The tax credit expires

December 31, 2032. The tax credit may not be carried forward and must be refunded. For income tax years commencing on or after January 1, 2025, the qualified retailer may elect advance payments of tax credit allowed pursuant to this section as specified in section 39-22-629.

G. MISCELLANEOUS. Taxpayer retailer may retain from the tax credit allowed in this section an administrative fee not to exceed \$50 for providing the discount.

08.20 Colorado state income tax credit for sustainable aviation fuel

A. GENERAL DESCRIPTION. Colorado provides an income tax credit in the amount of 30% of the cost of sustainable aviation fuel facilities. *Colo. Rev. Stat. §39-22-556; H.B. 1281 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of sustainable aviation fuel facilities. Taxpayer must be an aviation business, a sustainable aviation fuel producer, or an airport.

1. Taxpayer must be certified by the Colorado Energy Office.

C. QUALIFYING ACTIVITY. Taxpayer must invest in sustainable aviation fuel production facilities. Sustainable aviation fuel production facility is: (I) A facility which produces sustainable aviation fuel; or (II) A facility directly related to enabling the production or distribution of sustainable aviation fuel.

1. The sustainable aviation fuel production facility must be certified by the Colorado Energy Office.
2. Sustainable aviation fuel is set forth in Section 40B(d) of the Internal Revenue Code.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of amount of the actual cost paid to construct, reconstruct, or erect a sustainable aviation fuel production facility, for a facility that begins construction on or after January 1, 2024, but before January 1, 2027. The tax credit percentage is 24% for a facility for which construction begins on or after January 1, 2027, but before January 1,

2028; 18% for a facility for which construction begins on or after January 1, 2028, but before January 1, 2029; and 12% for a facility for which construction begins on or after January 1, 2029, but before January 1, 2033.

1. The costs of the sustainable aviation fuel production facility must be certified by the Colorado Energy Office.
2. Costs may not include legal fees, land cost or design costs.

E. **INCENTIVE LIMITS.** The statewide annual maximum tax credit is \$1 million for 2024, \$2 million for 2025 and 2026, and \$3 million for 2027-2032.

F. **INCENTIVE TIMEFRAME.** The tax credit applies after January 1, 2024. The tax credit expires December 31, 2032. The tax credit may not be carried forward and must be refunded.

G. **MISCELLANEOUS.** The tax credit must be recaptured if the production of a facility comprises less than 60% of the total fuel production for the facility in any of the three taxable years immediately following the taxable year in which the facility was placed in service.

08.21 Colorado state income tax credit for clean hydrogen

A. **GENERAL DESCRIPTION.** Colorado provides an income tax credit in the amount of \$0.33 - \$1.00 per kilogram of clean hydrogen used. *Colo. Rev. Stat. §39-22-557; Colo. Rev. Stat. §40-2-138; H.B. 1281 (2023).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer users of clean hydrogen.

1. Taxpayer must be certified by the Colorado Energy Office.

C. **QUALIFYING ACTIVITY.** Taxpayer must use clean hydrogen for a qualified use. Clean hydrogen is: (i) hydrogen derived from any electricity-generating technology that generates or stores electricity without emitting carbon dioxide into the atmosphere that uses water as the source of the hydrogen; or (ii) Hydrogen that is produced

through a process that results in lifecycle greenhouse gas emissions rates that are within the lifecycle greenhouse gas emissions rate ranges set forth in Federal Code Section 45V. Qualified use is the use of clean hydrogen in the state for: (I) Hard to decarbonize end uses; (II) The operation of a heavy-duty motor vehicle; and (III) Aviation.

1. Hard to decarbonize end use is an industrial uses that include: (A) The generation of heat of at least one hundred fifty degrees Celsius for industrial purposes; and (B) Addition as feedstock for industrial purposes, including manufacture of steel, ammonia, fertilizer, and chemicals.
2. Hard to decarbonize end use does not include the direct use of hydrogen for residential or commercial heating.

D. **INCENTIVE AMOUNTS.** The tax credit amount is: (i) \$1.00 per kilogram used that results in a tier one greenhouse gas emissions rate in the income tax year; and (ii) \$0.33 per kilogram used that results in a tier two greenhouse gas emissions rate in the income tax year.

E. **INCENTIVE LIMITS.** The maximum tax credit amount for: (i) 2024-2025 is \$1,000,000; (ii) 2026-2028 is \$500,000; (iii) 2029-2032 is \$250,000.

F. **INCENTIVE TIMEFRAME.** The tax credit applies after January 1, 2024. The tax credit expires December 31, 2032. The tax credit may not be carried forward and must be refunded.

G. **MISCELLANEOUS.**

08.22 Colorado state property tax exemption for electric vehicle charging systems

A. **GENERAL DESCRIPTION.** Colorado provides a property tax exemption for electric vehicle charging systems. *Colo. Rev. Stat. §39-3-138; H.B. 1233 (2023).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer owners of electric vehicle charging systems.

C. QUALIFYING ACTIVITY. Taxpayer must own electric vehicle charging systems. Electric vehicle charging system is a device that is used to provide electricity to a plug-in electric vehicle or plug-in hybrid vehicle, is designed to ensure that a safe connection has been made between the electric grid and the vehicle, and is able to communicate with the vehicle's control system so that electricity flows at an appropriate voltage and current level.

1. An electric vehicle charging system must be certified by underwriters laboratories or an equivalent certification and must comply with the current version of article 625 of the national electrical code.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% the value of electric vehicle charging systems.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2029.

G. MISCELLANEOUS.

09. Connecticut State Tax Incentives for Renewable Energy and Energy Efficiency

09.01 Connecticut state sales and use tax exemption for renewable and clean energy technology industries

A. GENERAL DESCRIPTION. Connecticut provides a sales and use tax exemption in the amount of 100% of the tax on items used directly in renewable and clean energy technology industries. *Conn. Gen. Stat. §12-412(117)(B); S.B. 2007(7); H.B. 5435 (2010); Special Notice 2010(9.1).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of items used directly in renewable and clean energy technology industries.

1. Taxpayer purchaser must present certificate CERT-142, Items Used Directly in the Renewable Energy and Clean Energy Technology Industries, to the seller when purchasing the items.

C. QUALIFYING ACTIVITY. Taxpayer must purchase items used directly in renewable and clean energy technology industries equipment. Renewable and clean energy technology industries are industries that apply technologies to produce, improve, or develop solar energy electricity generating systems, passive or active solar water or space heating systems, geothermal resource systems, and wind power electric generation systems.

1. Qualifying renewable and clean energy technology industries equipment includes research, development, testing and manufacturing beginning with research activities and ending when the product is ready for delivery or storage, including overpacking and crating.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

09.02 Connecticut state corporate business tax exemption for alternative energy and motor vehicle systems

A. GENERAL DESCRIPTION. Connecticut provides a corporate business tax exemption in the amount of 100% of the tax on qualifying businesses engaged in the research, design, manufacture, sale or installation of alternative energy systems or motor vehicles powered by electricity, natural gas or solar energy. *Conn. Gen. Stat. §12-214(a).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer corporations engaged in the research, design, manufacture, sale or installation of alternative energy systems or motor vehicles powered by electricity, natural gas or solar energy.

1. Taxpayer must have gross annual revenues for the preceding income year not exceeding \$100 million and 75% of the gross annual revenues derived from alternate energy systems or alternate-fuel motor vehicles.

C. QUALIFYING ACTIVITY. Taxpayer must engage in research, design, manufacture, sale or installation of alternative energy systems or qualifying motor vehicles. Alternative energy systems are those which use solar, wind, water or biomass energy in producing space heating or cooling, water heating, or electrical generation. Qualifying motor vehicles must be powered by electricity, natural gas or solar energy.

1. Alternative energy systems do not include wood-burning stoves.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the business tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

09.03 Connecticut state sales tax exemption for fuel cell manufacturing facilities

A. GENERAL DESCRIPTION. Connecticut provides a sales tax exemption in the amount of 100% of the tax on the sales to and the storage, use or other consumption by a fuel cell manufacturing facility of machinery and equipment. *Conn. Gen. Stat. §12-412(113)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer fuel cell manufacturing facilities purchasing qualifying machinery and equipment. A fuel cell manufacturing facility is the portion of a plant, building, or other real property improvement used for the manufacturing of fuel cell parts or components or for the significant overhauling or rebuilding of such parts or components on a factory basis.

C. QUALIFYING ACTIVITY. Taxpayer must purchase qualifying machinery and equipment. Fuel cell is a device that directly or indirectly produces electricity directly from hydrogen or hydrocarbon fuel through a noncombustive electro-chemical process. Machinery and equipment is tangible personal property, which is installed in a fuel cell manufacturing facility operated by a fuel cell manufacturer and the predominant use of which is the manufacturing of fuel cells.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

09.04 Connecticut state personal income tax exclusion for state rebates for efficient furnaces and boilers

A. GENERAL DESCRIPTION. Connecticut provides a personal income tax exclusion in the amount of the \$500 rebate for efficient furnaces and boilers from the CT Office of Policy and Management. *Conn. Gen. Stat. §16-46e(d)*.

B. ELIGIBLE TAXPAYERS. The tax exclusion is available to Taxpayer individuals receiving the \$500 rebate for efficient furnaces and boilers from the CT Office of Policy and Management.

C. QUALIFYING ACTIVITY. Taxpayer must receive the \$500 rebate for efficient furnaces and boilers from the CT Office of Policy and Management.

D. INCENTIVE AMOUNTS. The tax exclusion amount is \$500.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

09.05 Connecticut state income tax exemption for sales or import of alternative fuel commercial heating oil

A. GENERAL DESCRIPTION. Connecticut provides an income tax exemption in the amount of 100% of the tax for sales or import of alternative fuel commercial heating oil. *Conn. Gen. Stat. §12-587; Connecticut Special Notice 2006(2), 06/19/2006*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer seller and importers of alternative fuel commercial heating oil.

C. QUALIFYING ACTIVITY. Taxpayer must sell or import qualifying commercial heating oil blend. Qualifying commercial heating oil blend is heating oil containing not less than 10% of alternative fuels derived from agricultural produce, food waste, waste vegetable oil or municipal solid waste, including, but not limited to, biodiesel or low sulfur dyed diesel fuel.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the gross earnings on the sale or import qualifying commercial heating oil blend.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

09.06 Connecticut state income tax credit for energy efficient green building

A. GENERAL DESCRIPTION. Connecticut provides an income tax credit in the amount of 5-11% of allowable costs of energy efficient green building projects. *Conn. Gen. Stat. §12-217mm; L. 2009 09-8 §7(b); S.B. 1502 (2017)*.

B. ELIGIBLE TAXPAYERS. Taxpayer owners constructing or renovating eligible green building projects.

1. Taxpayer must be certified by the CT Secretary of the Office of Policy and Management.
2. Taxpayer must be certified by an architect or professional engineer and accredited through the LEED Accredited Professional Program.
3. Taxpayer may assign or transfer the tax credit to Taxpayer transferees.
4. Taxpayer subsequent successor in interest to the property may claim the tax credit if the deed transferring the property assigns the subsequent successor such right and the deed does not specify that the seller shall retain the right to claim such tax credit.

C. QUALIFYING ACTIVITY. Taxpayer must construct or renovate energy efficient green building projects. Green building projects are LEED certified Gold or better buildings.

1. Energy efficient green building projects must not have energy use that exceeds 70% of the energy use permitted by the state building code for new construction. Energy efficient green building projects must not have energy use that exceeds 80% of the energy use permitted by the state building code for a renovation project.
2. Energy efficient green building projects must use equipment and appliances that meet Energy Star standards.

D. INCENTIVE AMOUNTS. The tax credit amount is equal to the tax credit percentage multiplied by the qualifying costs. The base tax credit percentage amounts are: 5% for LEED Certified Gold core and shell or commercial interior projects; 7% for LEED Certified Platinum core and shell or commercial

interior projects; 8% for LEED Certified Gold new construction or major renovation projects; and 10.5% for LEED Certified Platinum new construction or major renovation projects. Qualifying costs are the amounts chargeable to a capital account, including, but not limited to: (1) construction or rehabilitation costs; (2) commissioning costs; (3) architectural and engineering fees allocable to construction or rehabilitation, including energy modeling; (4) site costs, such as temporary electric wiring, scaffolding, demolition costs and fencing and security facilities; and (5) costs of carpeting, partitions, walls and wall coverings, ceilings, lighting, plumbing, electrical wiring, mechanical, heating, cooling and ventilation.

1. A 0.5% tax credit percentage increase is allowed for projects that are: (1) mixed-use developments, (2) located in a brownfield or enterprise zone, (3) does not require a sewer extension of more than 1/8 of a mile, or (4) located within 1/4 of a mile walking distance of publicly available bus transit service or within 1/2 of a mile walking distance of adequate rail, light rail, streetcar or ferry transit service.
2. Qualifying costs do not include the purchase of land, any remediation costs and the cost of telephone systems or computers.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is the tax credit for allowable costs of \$250 per square foot for new construction and of \$150 per square foot for renovation or rehabilitation of a building; or 25% of allowable costs. The statewide maximum annual tax credit amount is \$25 million.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years. The tax credit expired December 1, 2017.

G. MISCELLANEOUS.

09.07 Connecticut state property tax exemption for renewable energy systems

A. GENERAL DESCRIPTION. Connecticut provides a property tax exemption assessment in the amount of 100% of the cost for Class I renewable

energy systems and hydropower facilities that generate electricity for private residential use and commercial or industrial purposes. *Conn. Gen. Stat. §12-81(56),(57); Conn. Gen. Stat. §16-1(26),(27); P.A. 13-61; H.B. 6106 (2021); P.A. 21-180; Fuelcell Energy, Inc. v. Groton, Conn. Super. Ct. Dkt. No. HHBCV176038440S, 12/22/2021.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of Class I renewable energy systems and hydropower facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own Class I renewable energy source residential property or commercial/industrial property. Class I renewable energy source is energy or electrical generation derived from solar power, wind power, a fuel cell, methane gas from landfills, ocean thermal power, wave or tidal power, low emission advanced renewable energy conversion technologies, a run-of-the-river hydropower facility, or a sustainable biomass facility with an average emission rate of equal to or less than .075 pounds of nitrogen oxides per million BTU of heat input for the previous calendar quarter, a sustainable biomass facility with a capacity of less than 500 kilowatts or any distributed electrical generation, generated from a Class I renewable energy source. Active solar energy heating or cooling system is equipment which: (1) provides for the collection, transfer, storage and use of incident solar energy for water heating, space heating or cooling which absent such solar energy system would require a conventional energy resource, such as petroleum products, natural gas or electricity, (2) employs mechanical means such as fans or pumps to transfer energy, and (3) meets standards established by regulation by the CT Office of Policy and Management.

1. Class I renewable energy sources residential property must serve single-family homes or multi-family dwellings limited to four units to be eligible.

2. Class I renewable energy sources commercial or industrial property must be for commercial or industrial purposes, and the nameplate capacity of such source or facility must not exceed the load for the location where such generation or displacement is located.

3. Qualifying hydropower facilities must have a generating capacity of not more than 5 megawatts and must not cause an appreciable change in the river flow.

4. The utilization of or participation in any net metering or tariff policy or program implemented by the state or ownership of the Qualifying facility by a party other than the owner of the real property upon which the Qualifying facility is installed will not disqualify the Qualifying facility from exemption. The estimated annual production of the Qualifying facility may not exceed the estimated annual load for the location where the source or facility is located.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. An tax exemption claim must be filed with the assessor or board of assessors in the town in which the property is placed on or before November 1st in the applicable assessment year.

1. Applications required if major alterations are made to the renewable energy system.

G. MISCELLANEOUS.

09.08 Connecticut state sales and use tax exemption for residential energy-efficient products

A. GENERAL DESCRIPTION. Connecticut provides a sales and use tax exemption in the amount of 100% the tax on residential energy conservation and weatherization products. *Conn. Gen. Stat. §12-412k.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of residential energy conservation and weatherization products.

C. QUALIFYING ACTIVITY. Taxpayer must purchase residential energy conservation and weatherization products. Residential energy conservation and weatherization products include compact fluorescent light bulbs, programmable

thermostats, window film, caulking, window and door weather strips, insulation, water heater blankets, water heaters, natural gas and propane furnaces and boilers that meet the federal Energy Star standard, windows and doors that meet the federal Energy Star standard, oil furnaces and boilers that are not less than 84% efficient and ground-source heat pumps that meet the minimum federal energy efficiency rating.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% sales and use tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

09.09 Connecticut state income tax credit for energy conservation programs serving low-income persons

A. GENERAL DESCRIPTION. Connecticut provides an income tax credit in the amount of 60-100% of the amount invested in energy conservation programs serving low-income persons. *Conn. Gen. Stat. §12-635.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations investing in eligible energy conservation projects serving low-income persons.

C. QUALIFYING ACTIVITY. Taxpayer must invest in eligible energy conservation projects serving low-income persons. Energy conservation projects must be directed toward properties occupied by persons, at least 75% of whom are at an income level not exceeding 150% of the poverty level for the year next preceding the year during which such tax credit is to be granted, or properties owned or occupied by charitable corporations, foundations, trusts or other entities.

D. INCENTIVE AMOUNTS. The tax credit amount is 60-100% of amount invested.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

09.10 Connecticut state property tax exemption for zero-emission school buses

A. GENERAL DESCRIPTION. Connecticut provides a property tax exemption in the amount of 100% of assessment of zero-emission school buses. *Conn. Gen. Stat. §12-81(81). S.B. 4 (2022).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners zero-emission school buses.

C. QUALIFYING ACTIVITY. Qualifying zero-emission school buses are school buses that are certified by the Administrator of the Federal Environmental Protection Agency to have a drivetrain that produces, under any possible operational mode or condition, zero exhaust emission of (A) any air pollutant that is listed pursuant to 42 U.S. Code § 7408(a) (or any precursor to such an air pollutant); and (B) any greenhouse gas..

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of property value.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption is effective October 1, 2022.

G. MISCELLANEOUS.

09.11 Connecticut state property tax exemption for EV charging stations

A. GENERAL DESCRIPTION. Connecticut provides a property tax exemption in the amount of 100% of assessment of electric vehicle charging stations and any refueling equipment for fuel cell electric vehicles. *Conn. Gen. Stat. §12-81(80). S.B. 4 (2022).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of electric vehicle

charging stations and any refueling equipment for fuel cell electric vehicles.

C. QUALIFYING ACTIVITY. Qualifying electric vehicle charging stations are electric component assemblies or clusters of component assemblies designed specifically to charge batteries within electric vehicles by permitting the transfer of electric energy to a battery or other storage device in an electric vehicle. Qualifying level two electric vehicle charging stations are electric vehicle charging stations that supply 208 to 240 volt alternating current. Qualifying refueling equipment for fuel cell electric vehicle is refueling equipment for any vehicle that operates solely by use of a device that directly or indirectly produces electricity directly from hydrogen or hydrocarbon fuel through a noncombustive electro-chemical process.

1. Qualifying level two electric vehicle charging stations must be located on commercial or industrial property.
2. Qualifying electric vehicle charging stations must be located on residential property.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of property value.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption is effective October 1, 2022.

G. MISCELLANEOUS.

10. Delaware State Tax Incentives for Renewable Energy and Energy Efficiency

10.01 Delaware state income tax credit for new clean energy manufacturing jobs

A. GENERAL DESCRIPTION. Delaware provides an income tax credit in the amount of \$750 per job created in clean energy manufacturing. *Delaware Code Title 30 Section 2040; S.B. 40 (2011)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporation manufacturers creating new jobs in clean manufacturing.

C. QUALIFYING ACTIVITY. Taxpayer must hire 5 or more workers and invest at least \$200,000 (\$40,000 per new worker) in a qualified facility manufacturing clean energy technology devices. Clean energy technology devices are:

1. solar power devices or systems that use photovoltaic solar cells to produce electricity or that use solar energy to heat water;
2. fuel cell devices or systems that use an electrochemical generator that converts the chemical energy of a fuel and an oxidant directly to electricity;
3. wind power devices or systems that convert the motion of wind into electric power; or
4. geothermal power devices or systems that use the temperature differentials between the atmosphere and subterranean areas to heat or cool buildings or to heat water.

D. INCENTIVE AMOUNTS. The tax credit amount is \$750 per job and \$750 per \$100,000 of qualifying investment.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$500,000. The maximum annual tax credit allowed is 50% of Taxpayer's pre-credit tax liability in any one year.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

11. District of Columbia State Tax Incentives for Renewable Energy and Energy Efficiency

11.01 District of Columbia property tax exemption for cogeneration equipment

A. GENERAL DESCRIPTION. District of Columbia provides a property tax exemption in the amount of 100% of District tax on cogeneration equipment. *District of Columbia Official Code §47-1508(a)(12)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of cogeneration equipment.

C. QUALIFYING ACTIVITY. Taxpayer must own cogeneration equipment. Cogeneration equipment is equipment that produces both electric energy and useful heat energy or steam energy.

1. Qualifying cogeneration equipment must serve developments of more than 1 million square feet.
2. Qualifying cogeneration equipment must use fuel already subject to District tax.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the District tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption is available starting October 1, 2016.

G. MISCELLANEOUS.

11.02 District of Columbia property tax exemption for solar energy systems

A. GENERAL DESCRIPTION. District of Columbia provides a property tax exemption in the amount of 100% of District tax on solar energy systems. *District of Columbia Official Code §47-1508(a)(11)*; *District of Columbia Official Code §34-1431(14)*; *Law 19-252 (2013)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own solar energy systems. Solar energy system is equipment that use exclusively solar energy. Solar energy is radiant energy, direct, diffuse, or reflected, received from the sun at wavelengths suitable for conversion into thermal, chemical, or electrical energy, that is collected, generated, or stored for use at a later time.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the District tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

11.03 District of Columbia income tax credit for alternative fuel infrastructure

A. GENERAL DESCRIPTION. District of Columbia provides an income tax credit in the amount of 50% the cost of alternative fuel infrastructure. *District of Columbia Official Code §47-1806.12*; *Law 20-566 (2015)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers purchasing and installing alternative fuel infrastructure.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install alternative fuel infrastructure. Alternative fuel infrastructure is alternative fuel storage and dispensing or charging equipment on a qualified alternative fuel vehicle refueling property or in a qualified private residence. Alternative fuel includes ethanol containing 85% or more ethanol by volume with gasoline or other fuels, natural gas, biodiesel, electricity provided by a vehicle-charging station and hydrogen.

1. Qualified alternative fuel vehicle refueling property is property in the District that contains equipment available for use by the public for storing and dispensing alternative fuel, including charging electrically.

2. Qualified private residence is the dwelling of a person that has a vehicle-charging station.

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the cost equipment and labor of alternative fuel infrastructure.

1. Labor costs does not include cost associated with the purchase of land, existing qualified alternative fuel vehicle refueling property, or construction or purchase of any structure.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$1,000 per station for a qualified private residence and \$10,000 per station per qualified alternative fuel vehicle refueling property.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2026. Unused tax credit may be carried over 2 years.

G. MISCELLANEOUS.

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the cost equipment and labor of alternative fuel vehicle conversion.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$19,000 per vehicle.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2026.

G. MISCELLANEOUS.

11.04 District of Columbia income tax credit for alternative fuel vehicle conversion

A. GENERAL DESCRIPTION. District of Columbia provides an income tax credit in the amount of 50% the cost of alternative fuel vehicle conversion. *District of Columbia Official Code §47-1806.13; Law 20-566 (2015)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers converting vehicles to alternative fuel.

C. QUALIFYING ACTIVITY. Taxpayer must convert a petroleum diesel or petroleum derived gasoline motor vehicle to a alternative fuel vehicle. Alternative fuel vehicle conversion is alternative fuel storage and dispensing or charging equipment on a qualified alternative fuel vehicle refueling property or in a qualified private residence. Alternative fuel includes ethanol containing 85% or more ethanol by volume with gasoline or other fuels, natural gas, biodiesel, electricity provided by a vehicle-charging station and hydrogen.

12. Florida State Tax Incentives for Renewable Energy and Energy Efficiency

12.01 Florida state property tax exemption for residential renewable energy source devices

A. GENERAL DESCRIPTION. Florida provides a property tax assessment exemption in the amount of 100% the cost of residential renewable energy source devices. *Fla. Stat. §193.182; Fla. Stat. §193.624; H.B. 277 (2013); S.B. 90 (2017); Florida Technical Bulletin No. PTO-17-03, 08/16/2017.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of qualifying residential renewable energy source devices.

C. QUALIFYING ACTIVITY. Taxpayer must own residential renewable energy source devices. A renewable energy source device is equipment that collects, transmits, stores, or uses solar energy, wind energy, or energy derived from geothermal deposits. Renewable energy source devices include: (a) solar energy collectors, photovoltaic modules, and inverters; (b) storage tanks and other storage systems, excluding swimming pools used as storage tanks; (c) rockbeds; (d) thermostats and other control devices; (e) heat exchange devices; (f) pumps and fans; (g) roof ponds; (h) freestanding thermal containers; (i) pipes, ducts, wiring, structural supports, refrigerant handling systems, and other components used as integral parts of such systems; (j) windmills and wind turbines; (k) wind-driven generators; (l) power conditioning and storage devices that store or use solar energy wind energy, or energy derived from geothermal deposits to generate electricity or mechanical forms of energy; and (m) pipes and other equipment used to transmit hot geothermal water to a dwelling or structure from a geothermal deposit.

1. Renewable energy source devices do not include conventional backup systems or any equipment or structure that would be required in the absence of the renewable energy source device.

2. Renewable energy source devices do not include equipment that is on the distribution or transmission side of the point at which a renewable energy source device is interconnected to an electric utility's distribution grid or transmission lines.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due attributable to a residential renewable energy storage device. The tax exemption amount is 80% of the property tax due attributable to a commercial renewable energy storage device.

1. Renewable energy source devices operating for only a portion of the year of application for the tax exemption will receive a proportionally reduced tax exemption.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Taxpayer must file with the county property appraiser an application on or before March 1 of the first year such treatment is requested. The tax exemption expires December 31, 2037.

G. MISCELLANEOUS.

12.02 Florida state corporate income tax credit for renewable energy production

A. GENERAL DESCRIPTION. Florida provides an income tax credit in the amount of \$0.01/kWh of electricity produced from renewable sources and sold to an unrelated party. *Fla. Stat. §220.193; Fla. Dept. of Rev., Regs. §§12C-1.0191 et seq.; Section 7, Chapter 2012-117, Laws of Florida (2012).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporation producers and sellers of electricity produced from renewable energy facilities.

1. Taxpayer must be certified by the FL Department of Agriculture and Consumer Services.

2. Taxpayer partners or members of a pass-through entity share the tax credit in the same manner as items of income and expense pass

through for federal income tax purposes. When Taxpayer allocatee has received the tax credit by a pass-through, the application must identify the Taxpayer that passed the tax credit through, all Taxpayer allocatees that received the tax credit, and the percentage of the tax credit that passes through to each recipient.

3. Taxpayer may use the tax credit on a consolidated return basis up to the amount of tax imposed upon the consolidated group.

C. **QUALIFYING ACTIVITY.** Taxpayer must produce and sell electricity produced from renewable energy facilities. Renewable energy is electrical, mechanical, or thermal energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen, biomass, solar energy, geothermal energy, wind energy, ocean energy, waste heat, or hydroelectric power.

D. **INCENTIVE AMOUNTS.** The tax credit amount is equal to \$0.01/kWh of electricity produced and sold.

1. The tax credit amount is based on the sale of the facility's entire electrical production.

2. For expanded facilities, the tax credit amount is based on the increases in the facility's electrical production that are achieved. Expanded facility is a facility that increases its electrical production and sale by more than 5% above the facility's 2011 electrical production and sales.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amount is \$1 million. The statewide maximum annual tax credit amount is \$10 million. When the statewide maximum annual tax credit amount is reached, the tax credit amount is a prorated amount based on each Taxpayer applicant's increased production and sales.

F. **INCENTIVE TIMEFRAME.** The tax credit expires June 30, 2016. Applications are due by February 1 of each year. Unused tax credit may be carried forward 5 years.

G. **MISCELLANEOUS.**

1. Taxpayer cannot claim both the tax credit and the renewable energy technologies investment tax credit per Fla. Stat. §220.192.

2. The tax credit increases net income in the amount of the business deductions claimed on its federal return paid or incurred for the taxable year.

12.03 Florida state corporate income tax credit for alternative fuel vehicle property

A. **GENERAL DESCRIPTION.** Florida provides an income tax credit in the amount of 75% of the investment in production, storage, and distribution of biodiesel, biomass and ethanol. *Fla. Stat. §220.192; Section 6, Chapter 2012-117, Laws of Florida (2012); Fla. Dept. of Rev., Regs. §§12C-1.0191 et seq.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations investing alternative fuel vehicle property.

1. Taxpayer must be certified by the FL Department of Agriculture and Consumer Services.

2. Taxpayer or Taxpayer subsequent transferee may transfer the tax credit, in whole or in part, to any Taxpayer transferee by written agreement without transferring any ownership interest in the property or any interest in the entity owning such property. Taxpayer transferee is entitled to apply the tax credit against the tax with the same effect as if the Taxpayer transferee had incurred the eligible costs.

3. A tax credit held by a Taxpayer pass-through entity may be passed through to the Taxpayer allocatees designated as partners, members, or owners, respectively, in the manner agreed to by Taxpayer allocatees regardless of whether Taxpayer allocatees are allocated or allowed any portion of the federal energy tax credit for the eligible costs. Taxpayer allocatees must attach a copy of the certificate to each tax return on which the Taxpayer allocatee claims any portion of the tax credit.

C. **QUALIFYING ACTIVITY.** Taxpayer must make investments in alternative fuel vehicle property.

Alternative fuel vehicle property includes production, storage, and distribution of biodiesel, biomass and ethanol. Biodiesel is the mono-alkyl esters of long-chain fatty acids derived from plant or animal matter for use as a source of energy and meeting the specifications for biodiesel and biodiesel blends with petroleum products as adopted by rule of the FL Department of Agriculture and Consumer Services. Ethanol is an anhydrous denatured alcohol produced by the conversion of carbohydrates meeting the specifications for fuel ethanol and fuel ethanol blends with petroleum products as adopted by the FL Department of Agriculture and Consumer Services. Renewable fuel is a fuel produced from biomass that is used to replace or reduce the quantity of fossil fuel present in motor fuel or diesel fuel. Biomass is a power source that is comprised of, but not limited to, combustible residues or gases from forest products manufacturing, waste, byproducts, or products from agricultural and orchard crops, waste or coproducts from livestock and poultry operations, waste or byproducts from food processing, urban wood waste, municipal solid waste, municipal liquid waste treatment operations, and landfill gas.

1. Qualifying ethanol distribution property includes gasoline fueling station pump retrofits.

D. INCENTIVE AMOUNTS. The tax credit amount is 75% of all capital costs, operation and maintenance costs, and research and development costs incurred between July 1, 2012, and June 30, 2016.

1. Qualifying costs include the cost of constructing, installing, and equipping alternative fuel vehicle property in the state.

E. INCENTIVE LIMITS. The maximum annual amount is \$1 million. The statewide maximum annual tax credit amount is \$10 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2016. Unused tax credit may be carried forward in tax years ending before December 31, 2018.

G. MISCELLANEOUS.

12.04 Florida state sales tax exemption for solar energy systems

A. GENERAL DESCRIPTION. Florida provides a sales tax exemption in the amount of 100% of the tax on purchases of solar energy systems. Fla. Stat. §220.192; Fla. Stat. §212.08(7)(hh). Florida Tax Information Publication 00(A)01-27, 09/20/2000; Florida Tax Information Publication 05(A)01-05, 06/01/2005; Florida Tax Information Publication, No. 19A01-09, 08/09/2019.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of solar energy systems and their components.

1. Taxpayer must be certified by the FL Energy and Climate Commission.

C. QUALIFYING ACTIVITY. Taxpayer must purchase solar energy systems. A solar energy system is the equipment and requisite hardware that provide and are used for collecting, transferring, converting, storing, or using incidental solar energy for water heating, space heating and cooling, or other applications that would otherwise require the use of a conventional source of energy such as petroleum products, natural gas, manufactured gas, or electricity.

1. Solar energy systems will be listed periodically by the FL Solar Energy Center to the FL Department of Revenue.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

12.05 Florida state sales tax refund for alternative fuel distribution property

A. GENERAL DESCRIPTION. Florida provides a sales tax refund in the amount of 100% of the tax paid on purchases relating to distribution of biodiesel and ethanol. Fla. Stat. §220.192; Section 4, Chapter 2012-117, Laws of Florida

(2012); Fla. Stat. §212.08(7)(hhh); Fla. Admin. Code Ann. 12A-1.0142; Florida Tax Information Publication 10(A)01-09, 06/01/2012.

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer purchasers of property relating to alternative fuel distribution property.

1. Taxpayer must be certified by the FL Department of Agriculture and Consumer Services.

C. QUALIFYING ACTIVITY. Taxpayer must purchase alternative fuel distribution property. Alternative fuel vehicle distribution property is materials used in the distribution of biodiesel (B10-B100), ethanol (E10-E100), and other renewable fuels, including fueling infrastructure, transportation, and storage. Biodiesel is the mono-alkyl esters of long-chain fatty acids derived from plant or animal matter for use as a source of energy and meeting the specifications for biodiesel and biodiesel blends with petroleum products as adopted by rule of the FL Department of Agriculture and Consumer Services. Ethanol is an anhydrous denatured alcohol produced by the conversion of carbohydrates meeting the specifications for fuel ethanol and fuel ethanol blends with petroleum products as adopted by the FL Department of Agriculture and Consumer Services. Renewable fuel is a fuel produced from biomass that is used to replace or reduce the quantity of fossil fuel present in motor fuel or diesel fuel. Biomass is a power source that is comprised of, but not limited to, combustible residues or gases from forest products manufacturing, waste, byproducts, or products from agricultural and orchard crops, waste or coproducts from livestock and poultry operations, waste or byproducts from food processing, urban wood waste, municipal solid waste, municipal liquid waste treatment operations, and landfill gas.

1. Qualifying distribution must be certified by the FL Department of Agriculture and Consumer Services.

D. INCENTIVE AMOUNTS. The tax refund amount is 100% of the sales tax paid.

E. INCENTIVE LIMITS. The statewide maximum annual tax refund amount is \$1 million.

F. INCENTIVE TIMEFRAME. The tax refund expires July 1, 2016.

G. MISCELLANEOUS.

12.06 Florida state sales tax exemption for Energy Star and WaterSense products

A. GENERAL DESCRIPTION. Florida provides a sales tax exemption in the amount of 100% of the tax on purchase of Energy Star energy-efficient products. L. 2014-38, §21; Florida Tax Information Publication 14(A)01-06, 08/08/2014.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of Energy Star energy-efficient products.

C. QUALIFYING ACTIVITY. Taxpayer must purchase Energy Star energy-efficient products. Energy Star energy-efficient products include qualifying air purifiers, ceiling fans, clothes dryers, clothes washers, dehumidifiers, dishwashers, freezers, light bulbs (packages), refrigerators, room air conditioners, swimming pool pumps, and water heaters.

1. Energy Star energy-efficient products include installation charges for products that remain personal property when installed.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS. The annual maximum tax exemption amount is 100% of the sales tax due on \$1,500 for qualifying item having a sales price of \$500 or more. The tax exemption is limited to a single purchase for each specific type of qualifying item having a sales price of \$500 or more.

1. There are no annual maximum tax exemption amount or quantity limits on qualifying items with a sale price of less than \$500.

F. INCENTIVE TIMEFRAME. The tax exemption period is September 19 through September 21, 2014.

G. MISCELLANEOUS.

13. Georgia State Tax Incentives for Renewable Energy and Energy Efficiency

13.01 Georgia state sales tax exemption for biomass materials

A. GENERAL DESCRIPTION. Georgia provides a sales tax exemption in the amount of 100% of the tax on sale or use of biomass material used in the production of energy. *O.C.G. §48-8-3(83)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of qualifying biomass material.

C. QUALIFYING ACTIVITY. Taxpayer must purchase biomass material utilized in the production of energy, including the production of electricity and steam. Biomass material is organic matter, excluding fossil fuels, including agricultural crops, plants, trees, wood, wood wastes and residues, sawmill waste, sawdust, wood chips, bark chips, and forest thinning, harvesting, or clearing residues; wood waste from pallets or other wood demolition debris; peanut shells; pecan shells; cotton plants; corn stalks; and plant matter, including aquatic plants, grasses, stalks, vegetation, and residues, including hulls, shells, or cellulose containing fibers.

1. Biomass materials include pellets and fuels derived from biomass.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

13.02 Georgia state sales tax exemption for energy-efficient products

A. GENERAL DESCRIPTION. Georgia provides a sales tax exemption in the amount of 100% the tax on energy-efficient residential appliances, lighting,

doors and windows. *O.C.G. §48-8-3(82)*; *Georgia Dept of Rev. Rule 560-12-2-.112 (2012)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of energy-efficient residential appliances, lighting, doors and windows.

C. QUALIFYING ACTIVITY. Taxpayer must purchase energy efficient products under \$1,500. Energy efficient products include any energy efficient product for noncommercial home or personal use including dishwashers, clothes washers, air conditioners, ceiling fans, fluorescent light bulbs, dehumidifiers, programmable thermostats, refrigerators, doors, or windows which have been designated by the US Environmental Protection Agency and the US Department of Energy as meeting or exceeding each such agency's energy saving efficiency requirements or Energy Star program.

1. Qualifying energy efficient products must be certified Energy Star or WaterSense Products.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales and use tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption is effect from September 30 to October 2 (2016).

G. MISCELLANEOUS.

13.03 Georgia state income tax credit for alternative energy product manufacturing

A. GENERAL DESCRIPTION. Georgia provides an income tax credit in the amount of up to \$4,000 per new employee in alternative energy manufacturing business enterprises located in qualified counties. *O.C.G. §48-7-40*; *H.B. 868 (2012)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer manufacturers of alternative energy manufacturing business enterprises.

C. **QUALIFYING ACTIVITY.** Taxpayer must be located in qualified counties and create jobs in manufacturing of alternative energy products. Alternative energy products are produced for use in solar, wind, battery, bioenergy, biofuel, and electric vehicle enterprises.

1. Qualified counties must be certified by the GA Commissioner of Community Affairs.
2. Qualifying jobs must require a minimum of 35 hours a week and have an average wage above the average wage of the county that has the lowest average wage of any county in the state to qualify.

D. **INCENTIVE AMOUNTS.** The annual tax credit amount is \$4,000 per eligible new full-time employee for existing business enterprise in Tier 1 counties.

E. **INCENTIVE LIMITS.** The maximum tax credit allowed to be claimed is 50% of the state income tax liability of Taxpayer located in Tier 3 and 4 counties. The tax credit may be carried forward 10 years.

F. **INCENTIVE TIMEFRAME.** The tax credit period is 5 years.

G. **MISCELLANEOUS.**

13.04 Georgia state income tax credit for alternative fuel vehicles

A. **GENERAL DESCRIPTION.** Georgia provides an income tax credit in the amount of \$12,000 or \$20,000 for the purchase of an purchasing alternative fuel vehicle. *O.C.G. §48-7-29.18; Ga. Comp. R. & Reg. 560-7-8-.53; H.B. 348 (2014).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporation purchasing alternative fuel vehicles.

1. Taxpayer must be certified by the GA Department of Revenue.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase alternative fuel vehicles. Alternative fuel vehicles are heavy- and medium-duty vehicles

that run on electricity, liquid petroleum gas, natural gas, or hydrogen fuel.

1. Alternative fuel vehicles do not include hybrid electric drives unless the vehicle has a gross weight equal to or greater than 8,500 pounds and less than 26,000 pounds.
2. Alternative fuel vehicles must be certified by the GA Department of Natural Resources.
3. Alternative fuel vehicles must accumulate at least 75 percent of its mileage in Georgia in each year for a 5-year period, and be registered in Georgia for no less than 5 years.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$20,000 per heavy-duty vehicle and \$12,000 per medium-duty vehicle.

E. **INCENTIVE LIMITS.** The statewide maximum annual tax credit amount is \$2.5 million. The maximum annual tax credit amount is \$250,000 per taxpayer. The tax credit is not refundable.

F. **INCENTIVE TIMEFRAME.** The tax credit is available July 1, 2015. The tax credit expires June 30, 2017. Unused tax credit may be carried forward 5 years. Unused tax credit may be taken against Taxpayer's quarterly or monthly payment under O.C.G. §48-7-103.

G. **MISCELLANEOUS.** The tax credit is not available for a Taxpayer that has received a tax credit for a low emissions vehicle.

15. Hawaii State Tax Incentives for Renewable Energy and Energy Efficiency

15.01 Hawaii state income tax exclusion for royalty income from high technology business intellectual property

A. GENERAL DESCRIPTION. Hawaii provides an income tax exclusion from gross income in the amount of 100% of royalties and other income derived from patents, copyrights, and trade secrets received by qualifying high technology businesses, including non-fossil sources energy technologies. *Haw. Rev. Stat. §235-7.3; Haw. Rev. Stat. §235-9.5; Hawaii Dept. of Taxation Announcements 2000-21, 07/12/2000.*

B. ELIGIBLE TAXPAYERS. The tax exclusion is available to Taxpayer qualifying high technology businesses earning royalties from patents, copyrights, and trade secrets.

C. QUALIFYING ACTIVITY. Taxpayer must derive qualifying royalties from patents, copyrights, and trade secrets. Qualifying royalties include all income earned and proceeds derived from stock options or stock, including stock issued through the exercise of stock options or warrants, from a qualifying high technology business or from a holding company of a qualifying high technology business by an employee, officer, or director of the qualifying high technology business, or investor who qualifies for the tax credit under *HRS §235-110.9*, that would otherwise be taxed as ordinary income or as capital gains to those persons. Holding company of a qualifying high technology business is any business entity that possesses at least 80% of the total voting power of the stock or other interests and at least 80% of the total value of the stock or other interest. Income earned and proceeds derived from stock options or stock includes income from (1) dividends from stock or stock received through the exercise of stock options or warrants; (2) the receipt or the exercise of stock options or warrants; or (3) the sale of stock options or stock, including stock issued through the exercise of stock options or warrants.

D. INCENTIVE AMOUNTS. The tax exclusion amount is 100% of qualifying royalties derived.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

15.02 Hawaii state income tax credit for renewable energy technologies

A. GENERAL DESCRIPTION. Hawaii provides a state income tax credit in the amount of 20-35% of the cost of renewable energy technologies. *Haw. Rev. Stat. §235-12.5; S.B. 464 (2009); Letter Ruling No. 2010-05; Tax Information Release No. 2007-02; Tax Information Release No. 2010-10; Letter Ruling No. 2010-20; Letter Ruling No. 2010-23; Letter Ruling No. 2010-25; Letter Ruling No. 2010-27; Letter Ruling No. 2010-29; Letter Ruling No. 2011-01; Letter Ruling No. 2011-06; Letter Ruling No. 2011-07; Announcement 2012-01; Haw. Admin. Rules §18-235-12.5-01T et seq.; Hawaii Letter Ruling No. 2018-01, 09/12/2018; S.B. 2820 (2020); Hawaii Tax Information Release No. 2022-02, 11/21/2022; Hawaii Tax Facts No. 2022-2, 12/01/2022.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers installing wind and solar property.

1. Taxpayer residential home developer may not claim the tax credit for single-family systems installed and placed in service in 2009. A residential home developer is a person who holds more than 1 residential dwelling for sale as inventory.

2. Distribution of the tax credit by Taxpayer members or partners of a flow through entity must be determined pursuant to *HRS §235-110.7*.

C. QUALIFYING ACTIVITY. Taxpayer must install renewable energy technology or solar or wind energy systems. Renewable energy technology system is a new system that captures and converts a renewable source of energy, such as wind, heat (solar thermal), or light (photovoltaic) from the sun into: (1) a usable source of thermal or mechanical energy; (2) electricity; or (3) fuel. Solar or wind energy system is any identifiable facility, equipment, apparatus, or the like that converts insolation or wind energy to useful

thermal or electrical energy for heating, cooling, or reducing the use of other types of energy that are dependent upon fossil fuel for their generation.

1. Each system, whether installed and integrated into a larger facility or constituting the entire facility, is an identifiable and independent solar energy system. The number of systems must be determined by the number of separate and independent connections to the site's electrical system and there must be a legitimate, nontax reason for a multisystem design.
2. Qualifying system must have a total output capacity of at least: (i) 5 kW for single-family residential property; (ii) 0.360 kW per unit for multi-family residential property; and (iii) 1,000 kW for commercial property.
3. Qualifying system does not include solar energy system that is five megawatts in total output capacity or larger and requires a power purchase agreement approved by the public utilities commission.

D. INCENTIVE AMOUNTS. The tax credit amount is 20% of the cost of equipment and installation of a wind system and 35% of the cost of equipment and installation of a solar thermal or photovoltaic system.

1. Taxpayer may reduce the tax credit amount by 30% and receive a refundable tax credit.
2. The tax credit may be refunded to certain qualifying taxpayers, including taxpayers whose entire income is exempt or whose adjusted gross income is \$20,000 or less (or \$40,000 or less if filing jointly).
3. Qualifying cost of equipment and installation does not include utility rebates.
4. Qualifying cost of equipment and installation must be determined at the entity level.

E. INCENTIVE LIMITS. The maximum tax credit amounts for qualifying solar thermal energy systems are \$2,250 for single family residential property, \$350 per unit for multi-family residential property, and \$250,000 for commercial property. The maximum tax credit amounts for qualifying photovoltaic systems are \$5,000 for single family residential property, \$350 per unit for multi-family

residential property, and \$500,000 for commercial property. The maximum tax credit amounts for qualifying wind powered energy systems are \$1,500 for single family residential property, \$200 per unit for multi-family residential property, and \$500,000 for commercial property. The tax credit is refundable for solar systems or for an individual taxpayer with adjusted gross income of \$20,000 or less (or \$40,000 or less for a married couple filing jointly).

1. When servicing multiple single-family residential properties, the taxpayer may claim the applicable credit for each property multiplied by the number of systems serving that property and may aggregate the caps for each system.
2. Electricity produced by the systems sold to the local electricity provider and directly fed into the local utility grid, would be subject to the \$500,000 commercial cap.

F. INCENTIVE TIMEFRAME.

1. The tax credits for qualifying solar energy systems that is five megawatts in total output capacity or larger and requires a power purchase agreement approved by the public utilities commission expired December 31, 2019.
2. The tax credits for qualifying solar thermal energy systems for single-family residential property expired December 31, 2009.

G. MISCELLANEOUS.

1. Qualifying cost of equipment and installation that exceed the maximum tax credit amount allowable may be used for the capital goods excise tax credit available for business property.
2. The nonrefundable credit is not subject to Hawaii income tax since the credit reduces tax liability and no actual money is received from the state. However, if the election is made, the refundable credit that exceeds the tax liability and actually results in a cash payment is subject to Hawaii income tax.

15.03 Hawaii state income tax credit for enterprise zone wind farm businesses

A. GENERAL DESCRIPTION. Hawaii provides an income tax credit over 7 years in the amount of 20-80% of the amount of income and employment taxes for enterprise zone producers of electric power from wind energy for sale primarily to a public utility company. *Haw. Rev. Stat. §209E-2.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer enterprise zone producers of electric power from wind energy for sale primarily to a public utility company.

1. Taxpayer must be certified by the HI Department of Business, Economic Development, and Tourism.
2. Prospective enterprise zones are nominated by county governing bodies and approved by the governor.

C. QUALIFYING ACTIVITY. Taxpayer must pay income tax and employment tax due on income derived from a qualifying business. A qualifying business is one engaged in producing electric power from wind energy for sale primarily to a public utility company for resale to the public.

1. Qualifying businesses must have at least 50% of the gross receipts from the enterprise zone establishment derived from active trade or business and it must increase its average annual number of full-time employees by at least 10% by the end of the first tax year of participation, and at least maintain that level in subsequent tax years.

D. INCENTIVE AMOUNTS. The tax credit amount begins at 80% of the income tax and employment tax due on income derived from business activities within the enterprise zone in Taxpayer's 1st taxable year in the enterprise zone program, then declines by 10% per year until it reaches 20% for the 7th taxable year.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit is taken over 7 years.

G. MISCELLANEOUS.

15.04 Hawaii state income tax credit for renewable fuels production

A. GENERAL DESCRIPTION. Hawaii provides an income tax credit over 5 years in the amount of 20¢ per 76,000 British thermal units of renewable fuels. *Haw. Rev. Stat. §235-110.31; S.B. 2652 (2016); H.B. 1044 (2017); Hawaii Tax Information Release No. 2018-03, 02/09/2018; Forms Available for Renewable Fuels Production Tax Credit, Hawaii State Energy Office, 02/20/2018; S.B. 3077 (2018).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers of qualifying renewable fuels.

1. Taxpayer must be certified by the HI Department of Business, Economic Development, and Tourism. Taxpayer must file the certificate with Taxpayer's tax return with the Department of Taxation.
2. Taxpayer partners or members of pass-through entities must distribute and share the tax credit as determined under section 704(b) of the Internal Revenue Code.

C. QUALIFYING ACTIVITY. Taxpayer must produce qualifying renewable fuels. Qualifying renewable fuels are fuels produced from renewable feedstocks; provided that the fuels shall be sold as a fuel and the fuels meet the relevant ASTM International specifications or other industry specifications for the particular fuel.

1. Qualifying renewable feedstocks are: (1) biomass crops and other renewable organic material, including but not limited to logs, wood chips, wood pellets, and wood bark; (2) agricultural residues; (3) oil crops, including but not limited to algae, canola, jatropha, palm, soybean, and sunflower; (4) sugar and starch crops, including but not limited to sugar cane and cassava; (5) other agricultural crops; (6) grease and waste cooking oil; (7) food wastes; (8) municipal solid wastes and industrial wastes; (9) water; and (10) animal residues and wastes, that can be used to generate energy.
2. Taxpayer must produce not less than 2.5 billion British thermal units of renewable fuels per calendar year.

D. INCENTIVE AMOUNTS. The tax credit amount is 20¢ per 76,000 British thermal units of renewable fuel.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$3 million. The statewide annual maximum tax credit amount is \$3 million. The tax credit is refundable.

F. INCENTIVE TIMEFRAME. The tax credit period is 5 years. The tax credit may be carried forward. Taxpayer must apply for the tax credit before the end of the 12th month following the close of the taxable year for which the tax credit may be claimed. Not later than thirty days following the close of the calendar year. Taxpayer must complete and file an independent, third-party certified statement, at the Taxpayer's sole expense, with the HI Department of Business, Economic Development, and Tourism. The tax credit expires December 31, 2021.

G. MISCELLANEOUS. No other tax credit may be claimed for the costs incurred in producing the renewable fuels that are used to properly claim the tax credit.

15.05 Hawaii state property tax exemption for alternative energy improvements

A. GENERAL DESCRIPTION. Hawaii provides a property tax assessment exemption in the amount of 100% the cost of alternative energy improvements. *Haw. Rev. Stat. §246-34.7; Revised Ordinances of the City and County of Honolulu 1990 §8-10.15; Code of the County of Maui §3.48.520; Kauai County Code 1987 §5A-11.15; Hawaii County Code §19-82; Code of the County of Maui §3.48.440; Ordinance No. 22-127 (Bill No. 227), effective 07/01/2023.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of qualifying alternative energy improvements.

C. QUALIFYING ACTIVITY. Taxpayer must own alternative energy improvements. Alternative energy improvement is construction or addition, alteration, modification, improvement or repair work undertaken upon or made to any building in the City and County of Honolulu, property or land, which results in the production of energy from a

source or uses of a process which does not use a fossil fuel, nuclear fuel or geothermal source, or that increases the efficiency level with respect to the utilization of fossil fuel energy or secondary forms of energy which are dependent upon fossil fuels for their generation. Alternate energy sources include, but are not limited to: solid wastes, wind, solar or ocean waves, tides or currents.

1. Alternative energy improvements must be certified by the HI Director of Finance.

2. For the County of Hawaii, taxpayer may install a solar water heater on the owner's single-family dwelling, ohana dwelling, farm dwelling, duplex, or double-family dwelling units.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

1. For the County of Hawaii, taxpayer is entitled to a one-time tax credit of up to \$1,000.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 25 years.

G. MISCELLANEOUS.

16. Idaho State Tax Incentives for Renewable Energy and Energy Efficiency

16.01 Idaho state property tax abatement for wind, solar and geothermal energy producers

A. GENERAL DESCRIPTION. Idaho provides a property tax abatement to the amount of 100% of the tax on gross energy earnings of wind and geothermal energy producers. *Idaho Code §63-3502B; Idaho Code §63-602JJ; H.B. 534 (2016)*.

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of commercial wind operating, solar and geothermal energy production facilities.

1. Taxpayer must not be regulated by the ID Public Utilities Commission.

C. QUALIFYING ACTIVITY. Taxpayer must own taxable commercial wind, solar and geothermal energy property. Qualifying property must be held or used in connection with or to facilitate the generation, transmission, distribution, delivery or measuring of electric power, natural gas or electrical energy generated, manufactured or produced by means of wind energy, solar energy or geothermal energy.

1. Qualifying property includes all conduits, ducts or other devices, materials, apparatus or property for containing, holding or carrying conductors used for the transmission, distribution and delivery of electric power, natural gas or electric energy generated, manufactured or produced by means of wind energy, solar energy or geothermal energy, including construction tools, materials and supplies.

D. INCENTIVE AMOUNTS. The tax abatement is to the amount of 100% of the tax on gross energy earnings.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

16.02 Idaho state income tax deduction for residential energy efficiency upgrades

A. GENERAL DESCRIPTION. Idaho provides an income tax deduction in the amount of 100% of the cost of installing new energy efficiency upgrades to the primary place of residence. *Idaho Code §63-3022B; H.B. 4 (2013)*.

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individuals installing or adding new energy efficiency upgrades to their primary place of residence.

C. QUALIFYING ACTIVITY. Taxpayer must install or add new energy efficiency upgrades to their primary place of residence. Energy efficiency upgrades are energy efficiency improvement to the building envelope or duct system that meets or exceeds the minimum value for the improved component established by the version of the international energy conservation code (IECC) in effect in Idaho during the taxable year in which the improvement is made or accrued. Energy efficiency upgrades include: (1) insulation that shall be added to existing insulation not in replacement of existing insulation; (2) windows that may replace less efficient existing windows; (3) storm windows; (4) weather stripping and caulking; and (5) duct sealing and insulation.

1. Qualifying insulation added must be in addition to, not a replacement of, existing insulation.

2. Qualifying duct sealing requires mechanical fastening of joints and mastic sealant.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of cost of material and labor for installing new insulation.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

16.03 Idaho state income tax deduction for residential alternative energy devices

A. GENERAL DESCRIPTION. Idaho provides an income tax deduction over 4 years in the amount of 100% of the cost of a solar, wind, geothermal, and certain biomass energy devices used for heating or electricity generation. *Idaho Code* §63-3022C.

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individuals installing solar, wind, geothermal, and certain biomass energy devices used for heating or electricity generation.

C. QUALIFYING ACTIVITY. Taxpayer must install an alternative energy device. Alternative energy devices include solar, wind, geothermal, and certain biomass energy devices used for heating or electricity generation.

1. Alternative energy devices include pellet stoves and EPA-certified wood stoves.

D. INCENTIVE AMOUNTS. The tax deduction amount is 40% of the cost in the year in which the system is installed and 20% of the cost each year for 3 years thereafter.

1. Qualifying cost includes the cost of construction, reconstruction, remodeling, installation and acquisition of the alternative energy device.

E. INCENTIVE LIMITS. The maximum annual tax deduction amount is \$5,000. The maximum cumulative tax deduction amount is \$20,000 per taxpayer.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

17. Illinois State Tax Incentives for Renewable Energy and Energy Efficiency

17.01 Illinois state property tax exemption for solar and wind energy property

A. GENERAL DESCRIPTION. Illinois allows a property tax exemption in the amount of 100% of the tax on solar energy systems, commercial solar energy systems, or wind energy devices. *ILCS Chapter 35 §200/10-10 et seq.; H.B. 4797 (2010); S.B. 2612 (2016); S.B. 486 (2018).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of property with a solar energy system, a commercial solar energy system, or wind energy device installed.

1. Taxpayer must file a claim with the county.

C. QUALIFYING ACTIVITY. Taxpayer must own a solar energy system or wind energy device. A solar energy system is a complete assembly, structure, or design of solar collector, or a solar storage mechanism, which uses solar energy for generating electricity that is primarily consumed on the property on which the solar energy system resides or for heating or cooling gases, solids, liquids, or other materials for the primary benefit of the property on which the solar energy system resides; the design, materials, or elements of a system and its maintenance, operation, and labor components, and any necessary components of supplemental conventional energy systems designed or constructed to interface with a solar energy system; and any legal, financial, or institutional orders, certificates, or mechanisms, including easements, leases, and agreements, required to ensure continued access to solar energy, its source, or its use in a solar energy system, including monitoring and educational elements of a demonstration project. Wind energy device is any wind turbine, with a nameplate capacity of at least 0.5 megawatts, that is used in the process of converting kinetic energy from the wind to generate electric power for commercial sale. Commercial solar energy system is any device or assembly of devices that (i) is ground installed and (ii) uses solar energy from the sun for generating electricity for the primary purpose of

wholesale or retail sale and not primarily for consumption on the property on which the device or devices reside.

1. Solar energy systems do not include distribution equipment that is equally usable in a conventional energy system except for those components of the equipment that are necessary for meeting the requirements of efficient solar energy utilization; and components of a solar energy system that serve structural, insulating, protective, shading, aesthetic, or other non-solar energy utilization purposes.

2. Solar energy systems do not include a commercial solar energy system in counties with fewer than 3,000,000 inhabitants

3. Solar energy systems must be certified by the IL Department of Commerce and Economic Opportunity.

4. Wind energy device projects must use an Illinois registered land surveyor to prepare a plat showing the metes and bounds description, including access routes, of the area immediately surrounding the wind energy device over which that owner has exclusive control and must record the plat and deliver a copy of it to the chief county assessment officer and to the owner of the land surrounding the newly platted area.

D. INCENTIVE AMOUNTS. The tax exemption amount for solar energy systems is 100% of the property tax due. The tax exemption amount for wind energy property lowers the assessment amount to the fair cash value. Fair cash value is the real property cost basis of \$360,000 (2007) per megawatt of nameplate capacity less an allowance for physical depreciation. The allowance for physical depreciation is equal to (i) the actual age in years of the wind energy device on the assessment date divided by 25 years multiplied by (ii) the trended real property cost basis. The allowance for physical depreciation, however, may not reduce the value of the wind energy device to less than 30% of the trended real property cost basis.

1. Fair cash value may be further reduced by functional obsolescence and external obsolescence.

2. Fair Cash Value of commercial solar energy system improvements in counties with fewer than 3,000,000 inhabitants shall be determined by subtracting the allowance for physical depreciation from the trended real property cost basis.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2016 for solar energy systems. The tax exemption expires December 31, 2033 for commercial solar energy systems. The tax exemption expires December 31, 2021 for wind energy devices.

G. MISCELLANEOUS.

17.02 Illinois state tax credit for renewable energy and energy conservation job creation

A. GENERAL DESCRIPTION. Illinois provides a tax credit in the amount awarded by the IL Department of Commerce and Economic Opportunity for renewable energy and energy conservation job creation. *ILCS Chapter 35 §10; ILCS Chapter 20 §630/2; Public Act 097-0581 (2011).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer qualifying employers.

1. Taxpayer must be certified by the IL Department of Commerce and Economic Opportunity for designation as a qualified employer.

2. Shareholders or partners of a Taxpayer that is a pass through entity shall be entitled to the tax credit allowed under the agreement between Taxpayer and IL Department of Commerce and Economic Opportunity.

C. QUALIFYING ACTIVITY. Taxpayer must produce energy conserving materials or services or be involved in development of renewable sources of energy.

D. INCENTIVE AMOUNTS. The tax credit amount is determined by the IL Department of Commerce and Economic Opportunity and is based on the following criteria: (1) the number and location of

jobs created and retained in relation to the economy of the county where the projected investment is to occur; (2) the potential impact on the economy of Illinois; (3) the magnitude of the cost differential between Illinois and the competing state; (4) the incremental payroll attributable to the project; (5) the capital investment attributable to the project; (6) the amount of the average wage and benefits paid by the Applicant in relation to the wage and benefits of the area of the project; (7) the costs to Illinois and the affected political subdivisions with respect to the project; (8) the financial assistance that is otherwise provided by Illinois and the affected political subdivisions.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit may not exceed 10 years or 15 years for corporate headquarters relocation.

G. MISCELLANEOUS.

17.03 Illinois state sales tax exemption for alternative fuel

A. GENERAL DESCRIPTION. Illinois provides a sales tax exemption in the amount of 20% of the tax on alternative fuel. *ILCS Chapter 35 §105/3-10; ILCS Chapter 35 §120/2-10.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of alternative fuel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase alternative fuel. Qualifying alternative fuel is gasohol and biodiesel blends with not less than 1% and not more than 10% biodiesel. Gasohol is motor fuel that is a blend of denatured ethanol and gasoline that contains not more than 1.25% water by weight. Biodiesel blend is a blend of biodiesel with petroleum-based diesel fuel in which the resultant product contains not less than 1% and not more than 99% biodiesel.

1. Qualifying gasohol must contain 90% gasoline and 10% denatured ethanol.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 20% of the sales tax due.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax exemption expires December 31, 2018.

G. **MISCELLANEOUS.**

17.04 Illinois state income tax credits for REV Illinois projects

A. **GENERAL DESCRIPTION.** Illinois provides an income tax credit in the amount awarded by the IL Department of Commerce and Economic Opportunity for REV Illinois projects. *ILCS Chapter 35 §5/236; ILCS Chapter 35 §120/5m; ILCS Chapter 35 §200/18-184.15; H.B. 1769 (2021); H.B. 5189 (2022); 86 Ill. Adm. Code § 100.2135; S.B. 2951 (2023); 86 Ill. Adm. Code §580.10 et seq; S.B. 1963 (2023).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to a Taxpayer which operates a business in Illinois or is planning to locate a business within the State of Illinois and engaged in interstate or intrastate commerce as a renewable energy manufacturer for the purpose of manufacturing electric vehicles, electric vehicle component parts, or electric vehicle power supply equipment.

1. Taxpayer must be certified by the IL Department of Commerce and Economic Opportunity.

2. Electric vehicle manufacturer is a new or existing manufacturer that is focused on reequipping, expanding, or establishing a manufacturing facility in Illinois that produces electric vehicles.

3. Electric vehicle component parts manufacturer is a new or existing manufacturer that is focused on reequipping, expanding, or establishing a manufacturing facility in Illinois that produces parts or accessories used in electric vehicles.

4. Electric vehicle power supply manufacturer is a new or existing manufacturer that is focused on reequipping, expanding, or establishing a manufacturing facility in Illinois that produces electric vehicle

power supply equipment used for the purpose of delivering electricity to an electric vehicle.

5. A renewable energy manufacturer is a manufacturer whose primary function is to manufacture or assemble: (1) equipment, systems, or products used to produce renewable or nuclear energy; (2) products used for energy conservation, storage, or grid efficiency purposes; or (3) component parts for that equipment or those systems or products.

6. Renewable energy is energy produced using the materials and sources of energy through which renewable energy resources are generated.

7. Renewable energy resources are wind, solar thermal energy, photovoltaic cells and panels, biodiesel, anaerobic digestion, crops and untreated and unadulterated organic waste biomass, and hydropower that does not involve new construction or significant expansion of hydropower dams, waste heat to power systems, or qualified combined heat and power systems, and landfill gas produced in the State.

8. Renewable energy resources does not include the incineration or burning of tires, garbage, general household, institutional, and commercial waste, industrial lunchroom or office waste, landscape waste, railroad crossties, utility poles, or construction or demolition debris, other than untreated and unadulterated waste wood.

C. **QUALIFYING ACTIVITY.** Taxpayer must undertake a for-profit economic development activity for the manufacture of electric vehicles, electric vehicle component parts, electric vehicle power supply equipment, or renewable energy products.

1. An electric vehicle manufacturer must: (A) make an investment of at least \$1,500,000,000 in capital improvements at the project site; (B) to be placed in service within the State within a 60-month period after approval of the application; and (C) create at least 500 new full-time employee jobs.

2. An electric vehicle component parts manufacturer or a renewable energy manufacturer must: (A) make an investment of at least \$300,000,000 in capital improvements

at the project site;(B) manufacture one or more parts that are primarily used for electric vehicle manufacturing;(C) to be placed in service within the State within a 60-month period after approval of the application; and (D) create at least 150 new full-time employee jobs.

3. An electric vehicle manufacturer, electric vehicle power supply equipment Manufacturer, or electric vehicle component part manufacturer that does not qualify above, must: (A) make an investment of at least \$20,000,000 in capital improvements at the project site; (B) for electric vehicle component part manufacturers, manufacture one or more parts that are primarily used for electric vehicle manufacturing; (C) to be placed in service within the State within a 48-month period after approval of the application; and (D) create at least 50 new full-time employee job.

4. An electric vehicle manufacturer, electric vehicle power supply equipment Manufacturer, or electric vehicle component part manufacturer, a renewable energy manufacturer, a battery recycling and reuse manufacturer, or a battery raw materials refining service provider that does not qualify above, must: (A) make an investment of at least \$2,500,000 in capital improvements at the project site; (B) for electric vehicle component part manufacturers, manufacture one or more parts that are primarily used for electric vehicle manufacturing; (C) to be placed in service within the State within a 48-month period after approval of the application; and (D) create at least 50 new full-time employee job.

5. An electric vehicle manufacturer or electric vehicle component parts manufacturer with existing operations within Illinois that intends to convert or expand, in whole or in part, the existing facility from traditional manufacturing to electric vehicle manufacturing, electric vehicle component parts manufacturing, or electric vehicle power supply equipment manufacturing must: (A) make an investment of at least \$100,000,000 in capital improvements at the project site; (B) to be placed in service within the State within a 60-month period after approval of the application; and (C) create the lesser of 50

new full-time employee jobs or new full-time employee jobs equivalent to 10% of the Statewide baseline applicable to the taxpayer and any related member at the time of application.

6. An electric vehicle manufacturer or electric vehicle component parts manufacturer with existing operations within Illinois that intends to convert or expand, in whole or in part, the existing facility from traditional manufacturing to electric vehicle manufacturing, electric vehicle component parts manufacturing, or electric vehicle power supply equipment manufacturing must: (A) make an investment of at least \$500,000,000 in capital improvements at the project site; (B) to be placed in service within the State within a 60-month period after approval of the application; and (C) create the lesser of 800 new full-time employee jobs or new full-time employee jobs equivalent to 10% of the Statewide baseline applicable to the taxpayer and any related member at the time of application.

7. Electric vehicle is a vehicle that is exclusively powered by and refueled by electricity, must be plugged in to charge or utilize a pre-charged battery, and is permitted to operate on public roadways.

8. Electric vehicles do not include hybrid electric vehicles and extended-range electric vehicles that are also equipped with conventional fueled propulsion or auxiliary engines.

9. Electric vehicle power supply equipment is the equipment used specifically for the purpose of delivering electricity to an electric vehicle.

10. Jobs must have a total compensation equal to or greater than 120% of the average wage paid to full-time employees in the county where the project is located.

11. Taxpayer is not entitled to claim a tax credit with respect to any jobs that the Taxpayer relocates from one site in Illinois to another site in Illinois.

D. INCENTIVE AMOUNTS. The REV Illinois tax credit amount is determined by the IL Department of Commerce and Economic Opportunity and is not to exceed the sum of (i) 75% of the incremental income tax attributable to new employees at the

applicant's project and (ii) 10% of the training costs of the new employees. The REV Construction Jobs Credit is an amount equal to 50% of the incremental income tax attributable to construction wages paid in connection with construction of the project facilities. The REV Investment Tax Credit is an amount equal to 0.5% of the basis for qualified property which is placed in service at the site of a REV Illinois Project.

1. If the project is located in an underserved area or an energy transition area, then the amount of the REV Illinois tax credit may not exceed the sum of (i) 100% of the incremental income tax attributable to new employees at the applicant's project; and (ii) 10% of the training costs of the new employees.

2. The REV Construction Jobs Credit may not exceed 75% of the amount of the incremental income tax attributable to construction wages paid in connection with construction of the project facilities if the project is in an underserved area or an energy transition area.

3. Qualified property is property which: (1) is tangible, whether new or used, including buildings and structural components of buildings; (2) is depreciable pursuant to Section 167 of the Internal Revenue Code, except that "3-year property" as defined in Section 168(c)(2)(A) of that Code is not eligible for the credit provided by this Section; (3) is acquired by purchase as defined in Section 179(d) of the Internal Revenue Code; (4) is used at the site of the REV Illinois Project by the taxpayer; and (5) has not been previously used in Illinois in such a manner and by such a person as would qualify for the credit provided by this Section. The basis of qualified property shall be the basis used to compute the depreciation deduction for federal income tax purposes.

4. For certain agreements entered before June 1, 2024, Taxpayer may receive a tax credit not to exceed 75% of the incremental income tax attributable to retained employees at the applicant's project. If the project is in an underserved area or an energy transition area, then the maximum amount of the credit attributable to retained employees may be increased to an amount not to exceed 100%

of the incremental income tax attributable to retained employees at the project.

E. INCENTIVE LIMITS. The REV Investment tax credit shall be available only in the taxable year in which the property is placed in service and shall not be allowed to the extent that it would reduce Taxpayer's liability to below zero. Unused tax credit may be carried forward 5 years.

F. INCENTIVE TIMEFRAME. The duration of the tax credit may not exceed 15 years or 10 years for an electric vehicle manufacturer, electric vehicle power supply equipment Manufacturer, or electric vehicle component part manufacturer that does not qualify above. The tax credit expires December 31, 2027.

G. MISCELLANEOUS.

1. In lieu of the REV Illinois Credit, The taxpayer may elect to claim the credit, on or after January 1, 2025, against its obligation to pay over withholding under Section 704A of the Illinois Income Tax Act.

2. In addition to the income tax credits, Qualifying projects may also benefit from utility tax exemptions, sales and use tax exemptions, and property tax abatements,

17.05 Illinois state sales and use tax exemptions for building materials in REV Illinois projects

A. GENERAL DESCRIPTION. Illinois provides state and local sales and use tax exemptions for building materials that will be incorporated into real estate in an electric vehicle manufacturing facility, an electric vehicle component parts manufacturing facility, or an electric vehicle power supply manufacturing facility REV Illinois site. 35 *ILCS 120/5m; Illinois Dept. of Rev. Info. Bulletin No. FY2022-16, 05/01/2022.*

B. ELIGIBLE TAXPAYERS. Applicants certified under the REV Illinois program by the Department of Commerce and Economic Opportunity (DCEO) can use this certification from DCEO to claim sales and use exemptions. Retailers and service persons may deduct receipt from these sales when calculating any tax due.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase building materials that will be incorporated into real estate in an electric vehicle manufacturing facility, an electric vehicle component parts manufacturing facility, or an electric vehicle power supply manufacturing facility REV Illinois site

D. **INCENTIVE AMOUNTS.** The tax exemption is 100% of the sales and use tax due.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax exemption expires December 31, 2027.

G. **MISCELLANEOUS.**

17.06 Illinois state use tax credit for sustainable aviation fuel

A. **GENERAL DESCRIPTION.** Illinois provides a use or service use tax credit for the sale or use of sustainable aviation in the amount of \$1.50 per gallon. *ILCS Chapter 35 §105/3-87; ILCS Chapter 35 §110/3-72; S.B. 2951 (2023); Illinois Dept. of Rev. Info. Bulletin No. FY 2023-23, 06/01/2023.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer air carrier purchasers of sustainable aviation fuel.

1. Taxpayer air carrier purchasers must be certified by the Department of Commerce and Economic Opportunity.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase a qualified sustainable aviation fuel. Qualified sustainable aviation fuel is liquid fuel that meets the criteria set forth in subsections (d) and (e) of Section 40B of the federal Internal Revenue Code of 1986 or (1) consists of synthesized hydrocarbons and meets the requirements of: (A) the American Society for Testing and Materials International Standard D7566; or (B) the Fischer-Tropsch provisions of American Society for Testing and Materials International Standard D1655, Annex A1; (2) prior to June 1, 2028, is derived from biomass resources, waste streams,

renewable energy sources, or gaseous carbon oxides, and beginning on June 1, 2028 is derived from domestic biomass resources; (3) is not derived from any palm derivatives; and (4) achieves at least a 50% lifecycle greenhouse gas emissions reduction in comparison with petroleum-based jet fuel, as determined by a test that shows: (A) that the fuel production pathway achieves at least a 50% reduction of the aggregate attributional core lifecycle emissions and the positive induced land use change values under the lifecycle methodology for sustainable aviation fuels adopted by the International Civil Aviation Organization with the agreement of the United States; or (B) that the fuel production pathway achieves at least a 50% reduction of the aggregate attributional core lifecycle greenhouse gas emissions values utilizing the most recent version of Argonne National Laboratory's GREET model, inclusive of agricultural practices and carbon capture and sequestration. Qualifying fuel must be used in Illinois.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$1.50 per gallon of sustainable aviation fuel purchased.

E. **INCENTIVE LIMITS.** No tax credit may be earned by a Taxpayer for soybean oil-derived sustainable aviation fuel once air carriers in this State have collectively purchased sustainable aviation fuel containing 10,000,000 gallons of soybean oil feedstock.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2032.

G. **MISCELLANEOUS.**

17.07 Illinois state tax credit for hydrogen fuel replacement

A. **GENERAL DESCRIPTION.** Illinois provides a tax credit in the amount of \$1.00 per kilogram for qualifying hydrogen used. *ILCS 35 §5/240; Public Act 103-0268 (2023).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer users of qualifying hydrogen.

1. Taxpayer must be certified by the IL Department of Commerce and Economic Opportunity.
2. The Department shall prioritize allocation and up to 90% of the tax credits shall be allocated to the following eligible taxpayers in proportion to their requested allocation up to their requested allocation: (A) taxpayers who participate in a United States Department of Energy Hydrogen Hub for their associated eligible qualifying hydrogen use; (B) taxpayers who purchase hydrogen from a participant in a United States Department of Energy Hydrogen Hub for their associated qualifying hydrogen use; or (C) taxpayers who purchase electricity to produce and use qualifying hydrogen from a participant in a United States Department of Energy Hydrogen Hub for their associated eligible qualifying hydrogen use.
3. Taxpayer may transfer tax credits within one year after the tax credits are awarded.

C. QUALIFYING ACTIVITY. Taxpayer using qualifying hydrogen. Qualifying hydrogen use is the use, in Illinois, of qualifying hydrogen, except for the use of qualifying hydrogen in the following sectors or for the following purposes: (1) the use of qualifying hydrogen in all vehicles powered by combustion engines or in vehicles in classes 1, 2, 3, 4, 5, and 6 in the 8-category Gross Vehicle Weight Rating (GVWR) classification system; (2) the use of qualifying hydrogen in heating or cooking in residential and commercial buildings, including space heating, water heating, and clothes drying, or in other cases where qualifying hydrogen is blended into the gas distribution system of a residential or commercial building; and (3) the use of qualifying hydrogen for the production of electricity generated using direct gas combustion, except when that use is (A) for the purpose of emissions reductions to achieve compliance with any rules or regulations promulgated by the United States Environmental Protection Agency, as interpreted and applied in State Implementation Plans under those rules and regulations, and (B) undertaken pursuant to an approved State Implementation Plan for the State of Illinois. Qualifying hydrogen is hydrogen that (i) receives 100% of the tax credit available under Internal Revenue Code Section 45V and (ii) meets the requirements of Section 27 of this Act.

D. INCENTIVE AMOUNTS. The tax credit amount is \$1.00 per kilogram of qualifying hydrogen used during the immediately preceding calendar year. The tax credit amount is increased by \$0.15 per kilogram meeting workforce equity and community benefit requirements.

E. INCENTIVE LIMITS. The maximum annual statewide credit amount is \$10 million.

F. INCENTIVE TIMEFRAME. The tax credit is applicable starting for tax years ending on or after December 31, 2027. The tax credit expires December 31, 2028. The tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

18. Indiana State Tax Incentives for Renewable Energy and Energy Efficiency

18.01 Indiana state property tax exemption for renewable energy property

A. GENERAL DESCRIPTION. Indiana provides a property tax assessment exemption in the amount of 100% of the cost of systems that generate energy using solar, wind, hydropower or geothermal resources. *Ind. Code §6-1.1-12-26 et seq.; H.B. 1086 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of qualifying renewable energy property installed in real property or a mobile home.

1. Taxpayer must fill out Form 18865 and file it with the local county auditor.
2. Taxpayer must own the real property, mobile home, or manufactured home, or be buying the real property, mobile home, or manufactured home under contract, on the date the statement is filed.

C. QUALIFYING ACTIVITY. Taxpayer must own property equipped with a solar energy heating or cooling system or hydroelectric and geothermal devices installed in real property or a mobile home.

1. A hydroelectric power device is a device designed to utilize the kinetic power of moving water to provide mechanical energy or to produce electricity.
2. A geothermal energy or cooling device is a device designed to utilize the natural heat from the earth to provide hot water, produce electricity, or generate heating or cooling.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. For qualifying mobile homes which is not assessed as real property, Taxpayer must file the statement during the 12

months before March 31st of each year of the tax exemption.

G. MISCELLANEOUS.

18.02 Indiana state income tax credit for alternative fuel vehicle manufacturing

A. GENERAL DESCRIPTION. Indiana provides an income tax credit in the amount of 15% of the qualifying investment in alternative fuel vehicle manufacturing. *Ind. Code §6-3.1-1-3; Ind. Code §6-3.1-31.9; Indiana Information Bulletin IT103, 08/01/2009; Indiana Information Bulletin IT103, 05/01/2012*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer assemblers or manufacturers of alternative fuel vehicles.

1. Taxpayer must be certified by the IN Economic Development Corporation.

C. QUALIFYING ACTIVITY. Taxpayer must invest in alternative fuel vehicle manufacturing. An alternative fuel vehicle is any passenger car or light truck with a gross weight of 8,500 pounds or less that is designed to operate using smethanol, denatured ethanol, other alcohols, E85 (mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuel), natural gas, liquefied petroleum gas, hydrogen, coal-derived liquid fuels, non-alcohol fuels derived from biological material, P-Series fuels, electricity, biodiesel, or ultra-low sulfur diesel fuel.

D. INCENTIVE AMOUNTS. The tax credit amount is 15% of the qualifying investment. Qualifying investment is the amount of Taxpayer's expenditures in Indiana that are reasonable and necessary for the manufacture or assembly of alternative fuel vehicles. Qualifying investments include construction of new (or the modernization of existing) telecommunications, production, manufacturing, fabrication, assembly, finishing, distribution, transportation, or logistical distribution facilities; purchase of new equipment used for telecommunications, production, manufacturing, fabrication, assembly, finishing, distribution, transportation, or logistical distribution; purchase of new computers and related equipment; onsite

infrastructure improvements; costs associated with retooling existing machinery and equipment; costs associated with the construction of special-purpose buildings, pits, and foundations; and costs associated with the purchase of machinery, equipment, or special-purpose buildings used to manufacture or assemble alternative fuel vehicles.

1. Qualifying investment must be certified by the IN Economic Development Corporation

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2016. Unused tax credit may be carried forward 9 years.

G. MISCELLANEOUS. The tax credit may not be claimed with any of the other tax credits listed in Ind. Code §6-3.1-1-3.

18.03 Indiana state income tax deduction for installation of insulation

A. GENERAL DESCRIPTION. Indiana provides an income tax deduction in the amount of 100% the cost of the materials and labor used to install qualifying insulation in a taxpayer's principal residence. *Ind. Code §6-3-2-5; Indiana Information Bulletin IT43, 01/01/2003.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individuals installing qualifying insulation in Taxpayer's principal residence.

C. QUALIFYING ACTIVITY. Taxpayer must install qualifying insulation in Taxpayer's principal residence. Qualifying insulation includes ceiling insulation, wall insulation, floor insulation, roof insulation, hot bare pipe insulation and exterior insulation for a hot water heater. Insulation is any material commonly used in the building industry for the sole purpose of controlling the passage of heat energy into or out of a building. Qualifying insulation types include material made from fiberglass, rock wool, cellulose, Styrofoam, urea-based foam urethane, vermiculite, perlite, polystyrene, reflective insulation, extruded polystyrene foam, blown-in insulation, rolled insulation, sheet Styrofoam insulation, and wrap

insulation. Ceiling insulation is insulation installed within the enclosed walls of a principal residence or insulation installed between unheated attic space and the top level of a principal residence. Wall insulation is insulation installed in the surface of an exterior wall or in the cavity of an exterior wall. Floor insulation is insulation installed between the first level heating space of a residence and the unheated space beneath it, including a crawl space or a basement. Roof insulation is insulation installed on the surface of the roof facing the residential interior. Hot bare pipe insulation is insulation installed around the exterior of pipes. Exterior insulation for a hot water heater is insulation placed around the exterior of a hot water heater tank.

1. Qualifying insulation does not include materials replacing broken or worn-out materials.

2. Qualifying insulation includes weather stripping, storm windows, storm doors, thermal pane windows, and caulking.

3. Qualifying insulation does not include automatic setback thermostats, flue opening modifications, mechanical furnace ignition systems, solar energy equipment (such as collectors, rock beds, and heat exchangers), wind energy equipment (such as windmills), geothermal energy equipment, furnace replacement burners, meters, wood burning stoves, sky lights, heat pumps, and temporary plastic window coverings.

4. Qualifying residence or portion of residence must have been built at least 3 years prior to the taxable year for which the deduction is taken.

5. Qualifying insulation must be new and not used as a replacement for other material.

D. INCENTIVE AMOUNTS. The tax deduction amount is the cost of the insulation.

1. The cost of insulation includes installation costs.

E. INCENTIVE LIMITS. The maximum tax deduction is \$1,000.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS

18.04 Indiana state gross retail tax exemption for utility scale battery energy storage systems

A. GENERAL DESCRIPTION. Indiana provides a gross retail tax exemption in the amount of 100% of the tax on sales of utility scale battery energy storage system. *Ind. Code §6-2.5-5-10-5; S.B. 383 (2021); P.L. 159.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer utility purchasers of battery energy storage systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase utility scale battery energy storage systems. A utility scale battery energy storage system is a system capable of storing and releasing greater than 1MW of electrical energy for a minimum of one (1) hour utilizing an AC inverter and DC storage, or equipment which receives, stores, and delivers energy using batteries, compressed air, pumped hydropower, hydrogen storage (including hydrolysis), thermal energy storage, regenerative fuel cells, flywheels, capacitors, and superconducting magnets.

1. Qualifying equipment does not include foundations or property used to directly or indirectly connect the AC inverter or DC storage of such system to electrical energy production equipment or the customer's meter.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the gross retail tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

19. Iowa State Tax Incentives for Renewable Energy and Energy Efficiency

19.01 Iowa state income tax credit for wind and other renewable energy purchase and production

A. GENERAL DESCRIPTION. Iowa provides an individual and corporate income tax credit in the amount of \$0.015 per kilowatt-hour of energy generated and sold by eligible wind energy generators and other renewable energy facilities, including biomass and solar, \$4.50 per million BTUs of biogas used to generate either electricity or heat for commercial purposes, and \$0.44 per thousand cubic feet of hydrogen fuel generated and sold by an eligible renewable energy facility. *Iowa Code, §476C; Iowa Admin. Code §199-15.18 et seq.; S.B. 456 (2009); Iowa Admin. Code §701-52.27; Iowa Util. Bd., Regs. §199-15.22, 7/28/10 Iowa Admin. Bull.; H.B. 590 (2011); Iowa Utilities Bd. Regs. §§199-15.19 and -15.21, 9/21/11 Iowa Admin. Bull.; Iowa Dept. of Rev., Regs. §§701-52.23, .26, and .27, 11/30/11 Iowa Admin. Bull.; S.B. 2343 (2014); H.B. 645 (2015); H.B. 2468 (2016).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of wind and renewable energy production facilities and Taxpayer purchasers of renewable energy.

1. Taxpayer must be certified by the IA Utilities Board, which will verify the number of kilowatt-hours or BTUs sold by each eligible facility. The IA Department of Revenue will review the tax credit application and IA Utilities Board verification, and issue and track the tax credit certificates.

2. Wind and renewable energy production facilities must be at least 51% owned by specifically defined qualifying owners. Qualifying owners include: (1) a resident of this state; (2) any of the following: (a) an authorized farm corporation; (b) an authorized limited liability company; (c) an authorized trust; (d) a family farm corporation; (e) a family farm limited liability company; (f) a family trust; (g) a revocable trust; (h) a testamentary trust; (3) a small business; (4) an electric

cooperative association that sells electricity to end users located in this state; (5) an electric cooperative association that has one or more members; (6) a cooperative corporation or a limited liability company whose shares and membership are held by an entity that is not prohibited from owning agricultural land; and (7) a school district.

3. Wind and renewable energy production facilities must not have a combined capacity exceeding 2.5 MW per qualifying owner.

4. Taxpayer owner may not have an ownership interest in more than 2 wind and renewable energy production facilities.

5. Taxpayer eligible to receive renewable electricity production credits authorized under IRC §45 may issue the tax credit certificate to a Taxpayer allocatee in the amounts designated by the Taxpayer owner or may be distributed to an equity holder or beneficiary as a liquidating distribution of a holder or beneficiary's interest in the Taxpayer owner. In absence of such designation, Taxpayer shareholder, partner, or member of a pass-through entity is entitled to a portion of tax credit in the percentage of the pass-through entity's distributive income to which the Taxpayer allocatee is entitled.

6. Taxpayer may transfer the tax credit certificates to any person. A tax credit certificate may only be transferred once. Any consideration received for the transfer is not included in Taxpayer transferor's income and any consideration paid for the transfer is not deducted from Taxpayer transferee's income.

C. QUALIFYING ACTIVITY. Taxpayer must own a wind and renewable energy production facility or purchase renewable energy. A wind and renewable energy production facility is a wind energy conversion facility, a biogas recovery facility, a biomass conversion facility, a methane gas recovery facility, a solar energy conversion facility, or a refuse conversion facility. Biogas recovery facility is an anaerobic digester system. Biomass conversion facility is a facility that converts plant-derived organic matter including agricultural food and feed crops, crop wastes and residues, wood wastes and residues, or aquatic plants to generate electricity, hydrogen fuel, or heat for a commercial purpose. Methane gas recovery facility is a facility which is used in

connection with a sanitary landfill or which uses wastes that would otherwise be deposited in a sanitary landfill, that collects methane gas or other gases and converts the gas into energy to generate electricity, hydrogen fuel, or heat for a commercial purpose. Refuse conversion facility is a facility that converts solid waste into fuel that can be burned to generate heat for a commercial purpose in this state. Solar energy conversion facility is a solar energy facility that collects and converts incident solar radiation into energy to generate electricity. Wind energy conversion facility is a wind energy conversion system that collects and converts wind into energy to generate electricity.

1. The tax credit is not allowed for any qualifying production that is purchased from an eligible renewable energy facility by a related person.
2. Wind and renewable energy production facility includes small wind energy systems operating within small wind innovation zones.
3. Qualifying renewable energy production facilities must have a nameplate generating capacity of at least 0.75 MW, if all or part of the facility's energy production is used for on-site consumption and, for facilities other than wind energy conversion facilities, no greater than 60 MW.

D. INCENTIVE AMOUNTS. The tax credit amounts are \$0.015 per kilowatt-hour generated and sold by eligible wind energy generators and other renewable energy facilities, including biomass and solar, \$4.50 per million BTUs of biogas used to generate either electricity or heat for commercial purposes, and \$0.44 per thousand cubic feet of hydrogen fuel generated and sold by an eligible renewable energy facility.

E. INCENTIVE LIMITS. The statewide maximum cumulative tax credit amount for qualifying wind and renewable energy production facilities is the tax credit amount for 363 MW. The statewide maximum cumulative tax credit amount for qualifying other renewable energy production facilities is the tax credit amount for 63 MW. No more than 10 MW of nameplate capacity may be allocated to any one facility. No more than 150 MW of nameplate capacity may be allocated to any one wind energy facility.

1. 10 MW of tax credits must be reserved for qualifying solar facilities with a generating capacity of 1.5MW or less or owned or contracted for by utilities.

F. INCENTIVE TIMEFRAME. The tax credit period is 10 years. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 7 years.

1. Qualifying facilities must be operational within 30 months of IA Utilities Board approval to maintain eligibility status, with an additional 24 months allowed for qualifying wind and renewable energy production facilities that are delayed by equipment availability issues.

G. MISCELLANEOUS. Qualifying facilities may not claim the tax credit in Iowa Code §476B or §422.11L.

19.02 Iowa state property tax exemption for solar and wind energy systems and biofuel production

A. GENERAL DESCRIPTION. Iowa provides a property tax exemption in the amount of 100% of the tax on solar and wind energy systems, and biofuel production systems. *Iowa Code §441.21(8), (12); Iowa Code §427A.1; Memorandum 16900028 (2016); Solar Energy Property Tax Procedures, Iowa Dept. of Rev., 05/18/2016.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar and wind energy system property and biofuel production systems.

C. QUALIFYING ACTIVITY. Taxpayer must own solar and wind energy system property or biofuel production property. Solar and wind energy system property includes: (1) a system of equipment capable of collecting and converting incident solar radiation or wind energy into thermal, mechanical, or electrical energy and transforming these forms of energy by a separate apparatus to storage or to a point of use; (2) a system that uses the basic design of the building to maximize solar heat gain during the cold season and to minimize solar heat gain in the hot season and that uses natural means to collect, store and

distribute solar energy; or (3) systems whose primary purpose is to store or provide electricity for use at the site where the system is located. Biofuel production property is a photobioreactor used in the production of algae for harvesting as a crop for biofuel production.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 5 years.

G. MISCELLANEOUS.

19.03 Iowa state sales tax exemption for hydroelectric, wind and solar energy equipment

A. GENERAL DESCRIPTION. Iowa provides a sales tax exemption in the amount of 100% of the tax on sales of hydroelectric, solar or wind energy equipment and all materials used to manufacture, install or construct these systems. *Iowa Code §423.3(54, 90); Iowa Code §423.4(4); Policy Letter 14300025; Policy Letter 15300027; Guidance: Solar Equipment Exemption, Iowa Dept. of Rev., updated 11/19/2021.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of hydroelectric, solar or wind energy equipment and materials.

C. QUALIFYING ACTIVITY. Taxpayer must purchase hydroelectric conversion, solar or wind energy equipment. Solar energy equipment is any equipment that is used to convert incident solar radiation to energy, or equipment used to transform the converted energy to storage or to some point of use. Wind energy equipment is any device, including a wind charger, windmill, wind turbine, tower and electrical equipment, pad mount transformers, power lines, and substation, which converts wind energy to a form of usable energy. Hydroelectric conversion equipment is any device, including but not limited to a generator, turbine, powerhouse, intake, coffer dam, walls, water conduit, tailrace, any other concrete components, electrical equipment

substation, poles, wires, transformers, breakers, and switches used to convert water, water power, or hydroelectricity to a form of usable energy.

1. Qualifying equipment does not include materials used for maintenance and repair of qualifying property.

2. Qualifying equipment does not include materials used for metering or monitoring a solar energy system, or switch gear used to connect a solar energy system to an electric grid.

3. Qualifying equipment does include panels, inverters, solar roof tiles or shingles, and energy transmission devices.

4. Qualifying equipment does not include a battery or other storage point, equipment used for safety or security of the equipment such as fencing, or equipment not used to collect, convert, or transmit solar energy.

5. Qualifying equipment does not include materials used to manufacture, install, or construct solar energy equipment, such as racking to install or mount solar energy equipment or pads or foundations to support a solar energy equipment installation.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

19.04 Iowa state property tax assessment for wind energy devices

A. GENERAL DESCRIPTION. Iowa provides a property tax assessment option for municipalities ranging from 0-30% of the net acquisition cost for wind energy conversion equipment. *Iowa Code §427B.26; Property Tax - Opinion - Wind Energy 427B.26 (October 20, 2008); Iowa Admin. Code § 701—80.13.*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer owners of wind energy conversion property.

1. The property tax assessment must be provided by ordinance of the city council or county board of supervisors.

C. QUALIFYING ACTIVITY. Taxpayer must own wind energy conversion property. Wind energy conversion property is the entire wind plant including, but not limited to, a wind charger, windmill, wind turbine, tower and electrical equipment, pad mount transformers, power lines, and substation.

D. INCENTIVE AMOUNTS. The tax assessment amount begins at 0% of the net acquisition cost in the first assessment year and increases annually by 5% points to a maximum of 30% of the net acquisition cost in the 7th and succeeding years.

1. If the local jurisdiction repeals the ordinance, the wind energy property shall be valued at the special rate until the end of the 19th assessment year following the first assessment year.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax assessment period is 20 years. Taxpayer must apply for the tax assessment amount by February 1 of the assessment year in which the wind energy property is first assessed for property tax purposes.

G. MISCELLANEOUS.

19.05 Iowa state replacement generation tax exemption for methane gas, cogeneration and wind energy property

A. GENERAL DESCRIPTION. Iowa provides a replacement generation tax exemption in the amount of 100% of the tax on methane gas conversion property and wind energy conversion property, and reduced generation tax equivalent to \$0.000001847 per kWh for large hydroelectric generators. *Iowa Code §437A.3(27); Iowa Code §437A.6; Iowa Code §427B.26; Iowa Code §427.1(29); S.B. 2373 (2010).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of methane gas conversion property, cogeneration property and wind energy conversion property subject to replacement generation tax.

1. If a generation facility is jointly owned or leased, the number of kilowatt-hours of electricity subject to the replacement generation tax shall be the number of kilowatt-hours of electricity generated and dispatched by the jointly held generation facility to the account of the taxpayer.

C. QUALIFYING ACTIVITY. Taxpayer must produce energy from methane gas conversion property, cogeneration property, wind energy conversion property or large hydroelectric generators. Methane gas conversion property is personal property, real property, and improvements to real property, and machinery, equipment, and computers assessed as real property, used in an operation connected with, or in conjunction with, a publicly owned sanitary landfill to collect methane gas or other gases produced as a by-product of waste decomposition and to convert the gas to energy, or to collect waste that would otherwise be collected by, or deposited with, a publicly owned sanitary landfill in order to decompose the waste to produce methane gas or other gases and to convert the gas to energy. Wind energy conversion property is the entire wind plant including, but not limited to, a wind charger, windmill, wind turbine, tower and electrical equipment, pad mount transformers, power lines, and substation.

1. Large hydroelectric generators must have a capacity of greater or equal to 100 MW.
2. Methane gas conversion property does not include property used to decompose the waste and convert the waste to gas.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% state replacement generation tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

19.06 Iowa state property tax exemption for methane gas conversion property

A. GENERAL DESCRIPTION. Iowa provides a property tax exemption in the amount of 100% of the cost of real and personal property used for methane gas collection and conversion into energy in conjunction with a publicly-owned sanitary landfill. *Iowa Code §427.1(29)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of methane gas conversion property.

C. QUALIFYING ACTIVITY. Taxpayer must own methane gas conversion property. Methane gas conversion property is personal property, real property, and improvements to real property, and machinery, equipment, and computers assessed as real property used in an operation connected with, or in conjunction with, a publicly owned sanitary landfill to collect methane gas or other gases produced as a by-product of waste decomposition and to convert the gas to energy, or to collect waste that would otherwise be collected by, or deposited with, a publicly owned sanitary landfill in order to decompose the waste to produce methane gas or other gases and to convert the gas to energy.

1. Methane gas conversion property does not include property used to decompose the waste and convert the waste to gas.
2. Methane gas conversion property includes property burning another fuel, for the value of such property which equals the ratio that its use of methane gas bears to total fuel consumed.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Taxpayer must apply for the tax exemption by February 1 of each year for which the exemption is requested.

G. MISCELLANEOUS.

19.07 Iowa state income tax credit for retail biodiesel blended fuel sold

A. GENERAL DESCRIPTION. Iowa provides an income tax credit in the amount of 0.045 per gallon of retail biodiesel fuel sold. *Iowa Code §422.11P; Iowa Code Ann. §422.33(11C); Iowa Admin. Code §701-52.31; S.B. 531 (2011); S.B. 2309 (2016); H.B. 2128 (2022)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer retailers of biodiesel fuel.

1. Taxpayer individual may claim the tax credit allowed a Taxpayer pass-through entity by electing to have the income taxed directly to Taxpayer individual. The allocated tax credit will be based upon the pro rata share of Taxpayer individual's earnings in the pass-through entity.

C. QUALIFYING ACTIVITY. Taxpayer must sell biodiesel fuel at retail. Biodiesel is a renewable fuel comprised of mono-alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats. Biodiesel blended fuel is a B-5 or higher blend of biodiesel with petroleum-based diesel fuel which meets the standards, including separately the standard for its biodiesel components.

1. Qualifying sale at retail must have a minimum of 50% of the total gallons of diesel fuel sold at the motor fuel site be biodiesel blended fuel.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.045 per gallon of retail biodiesel fuel sold. Beginning in 2018, the tax credit amount is \$0.035 to \$0.055 per gallon based on the biodiesel classification.

1. The tax credit is calculated separately for each retail motor fuel site operated by the retail dealer.
2. Taxpayer must report its total motor fuel gallonage for a determination period, indicating its total gasoline gallonage; total ethanol gallonage; total diesel fuel gallonage; and total biodiesel gallonage. The report must include a breakdown for each classification and subclassification under Iowa Code §452A.31 and must list the retail motor fuel

site or other permanent or temporary location from which the retail dealer sells and dispenses motor fuel.

E. INCENTIVE LIMITS. The tax credit is refundable.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2027.

G. MISCELLANEOUS.

19.08 Iowa state income tax credit for retail E-85 gasoline sales

A. GENERAL DESCRIPTION. Iowa provides an income tax credit in the amount of \$0.16 per gallon of E85 gasoline sold at retail and dispensed through a motor fuel pump. *Iowa Code §422.110; Iowa Code §422.11Y; Iowa Code Ann. §422.33(11B); Iowa Admin. Code §701--52.30; S.B. 531 (2011); S.B. 2309 (2016); H.B. 2128 (2022).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer sellers and dispensers of E85 gasoline.

C. QUALIFYING ACTIVITY. Taxpayer must sell or dispense of E85 gasoline at retail. E-85 gasoline is ethanol blended gasoline formulated with a percentage of between 70% and 85% by volume of ethanol.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.16 per gallon sold or dispensed at retail.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2027.

G. MISCELLANEOUS.

19.09 Iowa state income tax credit for retail ethanol sales

A. GENERAL DESCRIPTION. Iowa provides an income tax credit in the amount of \$0.04-0.08 per gallon of ethanol sold. *Iowa Code §422.33(11A);*

Iowa Admin. Code. r. 701-52.36(422); S.B. 531 (2011).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporation sellers and dispensers of E85 gasoline.

1. Taxpayer may claim the tax credit allowed a Taxpayer pass-through entity by electing to have the income taxed directly to Taxpayer corporation. The allocated tax credit will be based upon the pro rata share of Taxpayer corporation's earnings in the pass-through entity.

C. QUALIFYING ACTIVITY. Taxpayer must sell from a motor fuel pump ethanol with a biofuel threshold percentage disparity of less than 4.01%.

D. INCENTIVE AMOUNTS. The tax credit amount is: \$0.08 per gallon with 0.00% biofuel threshold percentage disparity; \$0.06 per gallon with 0.01% - 2.00% biofuel threshold percentage disparity; \$0.04 per gallon with 2.01% - 4.00% biofuel threshold percentage disparity.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2020. Unused tax credit is refundable or may be carried forward 1 year.

G. MISCELLANEOUS.

19.10 Iowa state income tax credit for retail E-15 gasoline sales

A. GENERAL DESCRIPTION. Iowa provides an income tax credit in the amount ranging from \$0.03- 0.10 per gallon of E15 gasoline sold at retail and dispensed through a motor fuel pump. *Iowa Code §422.33(11D); Iowa Code §422.11Y; S.B. 531 (2011); S2344 (2014); S.B. 2309 (2016); H.B. 2128 (2022).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer sellers and dispensers of E15 gasoline.

C. QUALIFYING ACTIVITY. Taxpayer must sell or dispense of E15 gasoline at retail. E-15 gasoline

is ethanol blended gasoline formulated with a percentage of between 15% and 69% by volume of ethanol.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$0.03 per gallon sold or dispensed at retail from January 1 to May 31, and September 16 to December 31, and \$0.10 per gallon sold or dispensed at retail from June 1 to September 15, for each calendar year.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2025.

G. **MISCELLANEOUS.**

19.11 Iowa state income tax credit for residential geothermal heat pump

A. **GENERAL DESCRIPTION.** Iowa provides an income tax credit in the amount of 20% of the federal residential energy efficient property tax credit allowed for geothermal heat pumps. *Iowa Code §422.11I; Iowa Code §422.12N; Reg. §701—42.47.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer installing residential geothermal heat pump property.

C. **QUALIFYING ACTIVITY.** Taxpayer must install residential qualifying geothermal heat pumps. Qualifying geothermal heat pump property is property that uses the ground or ground water as a thermal energy source to heat the dwelling unit or as a thermal energy sink to cool the dwelling unit, and meets the Energy Star program requirements in effect when the expenditure is made.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 20% of the federal residential energy efficient property tax credit allowed for geothermal heat pumps provided in section 25D(a)(5) of the Internal Revenue Code. The tax credit amount is 10% of the qualified costs during years in which there is no federal credit.

E. **INCENTIVE LIMITS.** The statewide annual maximum amount is \$1 million.

F. **INCENTIVE TIMEFRAME.** Unused tax credit may be carried forward 10 years.

G. **MISCELLANEOUS.** See Federal Incentive 00.19.

19.12 Iowa state property tax exemption for residential geothermal heat pump

A. **GENERAL DESCRIPTION.** Iowa provides a property tax credit in the amount of 100% of the cost of residential geothermal heat pumps. *Iowa Code §427.38.*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer owners of residential geothermal heat pump property.

C. **QUALIFYING ACTIVITY.** Taxpayer own residential qualifying geothermal heat pumps. Qualifying geothermal heat pump property is property that uses the ground or ground water as a thermal energy source to heat the dwelling unit or as a thermal energy sink to cool the dwelling unit, and meets the Energy Star program requirements in effect when the expenditure is made.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the value of the geothermal heat pump property.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax exemption period is 10 years.

G. **MISCELLANEOUS.** See Federal Incentive 00.19.

19.13 Iowa state income tax credit for solar energy systems

A. **GENERAL DESCRIPTION.** Iowa provides an income tax credit in the amount of 50% of the federal residential energy efficient property tax credit and 50% of the federal energy investment tax credit allowed for solar energy systems. *Iowa*

Code §422.11L ; Reg. §701-52.44 ; Reg. § 701--42.48 ; H.B. 2438 (2014); S.B. 2340 (2014); H.B. 645 (2015); H.B. 2468 (2016); In the Matter of Johnathan Rousseau, Iowa Dept. of Inspections and Appeals, Administrative Hearing Division, Dkt. No. 19IDR0085, 09/05/2019; In the Matter of Lee S. Tesdell, Iowa Dept. of Rev., Dkt. No. 2017-200-2-0006, 04/07/2020; Guidance: Solar Energy System Tax Credits, Iowa Dept. of Rev., updated 06/07/2021; S.B. 2367 (2022).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer installing solar energy systems.

1. Taxpayer individual shareholders, partners or members of a pass-through entity are entitled to a percentage of the tax credit equal to a percentage of the pass-through entity's earnings to which the Taxpayer allocates are entitled.
2. Taxpayer may use the tax credit against the franchise tax.

C. QUALIFYING ACTIVITY. Taxpayer must install solar energy systems of qualifying solar energy property. For IRC 25D solar energy systems, qualifying solar electric property uses solar energy to generate electricity for use in a dwelling unit. Qualifying solar water heating property heats water for use in a dwelling unit, if at least half of the energy used by the property for that purpose is derived from the sun. For IRC 48 solar energy systems, qualifying solar energy property is equipment which uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a building or structure, or to provide solar process heat.

1. Qualifying solar energy systems must be separately metered by a utility company.

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the federal residential energy efficient property tax credit allowed for solar energy systems provided in IRC 25D(a)(5) and 50% of the federal energy investment tax credit allowed for solar energy systems provided in IRC 48.

E. INCENTIVE LIMITS. The maximum tax credit amount for is \$5,000 for IRC 25D solar energy systems and \$20,000 for IRC 48 solar energy

systems. The statewide annual maximum amount is \$5 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2021. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS. Qualifying systems may not claim the tax credit in Iowa Code §476C. See Federal Incentives 00.19 and 00.02.

19.14 Iowa state sales tax refund for biodiesel blended fuel

A. GENERAL DESCRIPTION. Iowa provides a sales tax refund in the amount of \$0.02 per gallon of retail biodiesel fuel sold. *Iowa Code §423.4(9); S.B. 531 (2012); S.B. 2309 (2016); H.B. 2128 (2022).*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer purchasers of biodiesel fuel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase biodiesel fuel used in biodiesel blended fuel. Biodiesel is a renewable fuel comprised of mono-alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats. Biodiesel blended fuel is a B-5 or higher blend of biodiesel with petroleum-based diesel fuel which meets the standards, including separately the standard for its biodiesel components.

D. INCENTIVE AMOUNTS. The tax refund amount is \$0.02 per gallon of biodiesel fuel purchased.

E. INCENTIVE LIMITS. The maximum tax refund is for 25 million gallons produced per facility.

F. INCENTIVE TIMEFRAME. The tax refund expires December 31, 2027. The tax refund is paid quarterly.

G. MISCELLANEOUS.

19.15 Iowa state income tax credit for geothermal heat pump

A. GENERAL DESCRIPTION. Iowa provides an income tax credit in the amount of 10% of the cost of residential geothermal heat pumps. *H.B. 2468*

(2016); Iowa Code §422.10A; Geothermal Heat Pump Tax Credit, Iowa Dept. of Rev., 06/03/2019.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer installing residential geothermal heat pump property.

1. Taxpayer must be certified by the IA Department of Revenue.

C. QUALIFYING ACTIVITY. Taxpayer must install residential qualifying geothermal heat pumps. Qualifying geothermal heat pump property is property that uses the ground or groundwater as a thermal energy source to heat the dwelling unit of the taxpayer or as a thermal energy sink to cool such dwelling unit, which equipment meets the requirements of the federal energy star program in effect at the time that the expenditure for such equipment is made. Qualifying geothermal heat pump property must be installed in a dwelling unit used as a residence by the Taxpayer

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of cost of qualifying geothermal heat pump property.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 10 years. The tax credit is effective in 2017.

1. Deadline to submit an application is May 1 following the year of installation.

G. MISCELLANEOUS. The taxpayer may not also claim the Residential Geothermal Heat Pumps tax credit (see 19.12). The tax credit is not available during any tax year in which the federal residential energy efficient property tax credit for geothermal heat pumps provided in section 25D(a)(5) of the Internal Revenue Code is available (see 00.18).

20. Kansas State Tax Incentives for Renewable Energy and Energy Efficiency

20.01 Kansas state property tax exemption for renewable energy equipment

A. GENERAL DESCRIPTION. Kansas provides a property tax exemption in the amount of 100% of the cost of renewable energy equipment. *Kan. Stat. Ann. §79-201(Eleventh); S.B. 91 (2015).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy equipment.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy equipment. Renewable energy includes wind, solar thermal, photovoltaic, biomass, hydropower, geothermal, fuel cells and landfill gas resources or technologies that are actually and regularly used predominantly to produce, store and generate renewable energy.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2016. The tax exemption period is 10 years.

G. MISCELLANEOUS.

20.02 Kansas state corporate income tax credit for alternative-fuel motor vehicles and fueling stations

A. GENERAL DESCRIPTION. Kansas provides an income tax credit in the amount of 40% the cost of fueling stations and 40% of the incremental cost or conversion cost for each vehicle. *Kan. Stat. Ann. §79-32,201; Kansas Revenue Department Public Notice 09-09, 06/29/2009. Kansas Opinion Letter O-1998-09, 09/01/1998.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations purchasing

qualifying alternative-fueled motor vehicles or qualifying alternative-fuel fueling stations.

C. QUALIFYING ACTIVITY. Taxpayer must purchase a qualifying alternative-fueled motor vehicle or qualifying alternative-fuel fueling station. A qualifying alternative-fueled motor vehicle is a vehicle that operates on an alternative fuel, meets or exceeds the clean fuel vehicle standards in the federal Clean Air Act amendments of 1990, Title II and meets one of the following categories: (1) bi-fuel motor vehicle (a vehicle with two separate fuel systems designed to run on either an alternative fuel or conventional fuel, using only one fuel at a time); (2) dedicated motor vehicle (a vehicle with an engine designed to operate on a single alternative fuel only); or (3) flexible fuel motor vehicle (a vehicle that may operate on a blend of an alternative fuel with a conventional fuel, as long as the vehicle is capable of operating on at least an 85% alternative fuel blend). A qualifying alternative-fuel fueling station is property which is directly related to the delivery of alternative fuel into the fuel tank of a motor vehicle propelled by such fuel. Qualifying alternative-fuel fueling station includes the compression equipment, storage vessels and dispensers for such fuel at the point where the fuel is delivered out, but only if such property is primarily used to deliver such fuel for use in a qualifying alternative-fueled motor vehicle.

1. Qualifying flexible fuel motor vehicle must use 500 gallons of the blend purchased between the date the vehicle was purchased and December 31 of the next succeeding calendar year.

D. INCENTIVE AMOUNTS. The tax credit amount is 40% of the amount expended for each fueling station and the incremental cost or conversion cost for each vehicle.

1. Incremental cost is the difference between the manufacturer's list price of a vehicle operating on conventional gasoline or diesel fuel and the manufacturer's list price of the same model vehicle designed to operate on an alternative fuel. Conversion cost is the cost for modifying a vehicle that is propelled by gasoline or diesel fuel to be propelled by an alternative fuel.

2. A minimum tax credit, in the amount of the lesser of 5% of the vehicle's cost or \$750, is allowed to the first individual to take title to the vehicle, if they are unable to determine a qualifying vehicle's basis or elect not to determine the exact basis attributable to such property.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$100,000 per each fueling station. The maximum tax credit amount is \$2,400 for each vehicle with a gross vehicle weight of less than 10,000 pounds; \$4,000 for a heavy duty motor vehicle with a gross weight of more than 10,000 pounds but less than 26,000 pounds; and \$40,000 for motor vehicles with a gross vehicle weight of more than 26,000 pounds. The maximum tax credit allowed to be claimed is 90% of the tax due.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 4 years.

G. MISCELLANEOUS.

20.03 Kansas state income tax deduction for biofuel storage and blending equipment

A. GENERAL DESCRIPTION. Kansas provides an income tax deduction in the amount of 55% of the amortizable costs of biofuel storage and blending equipment. *Kan. Stat. Ann. §79-32,255.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer placing biofuel storage and blending equipment in service.

C. QUALIFYING ACTIVITY. Taxpayer must place in service biofuel service storage and blending equipment. Biofuel storage and blending equipment is any equipment which is used for storing and blending petroleum-based fuel and biodiesel, ethanol or other biofuel and is installed at a fuel terminal, refinery or biofuel production plant. Biofuel is fuel made from organic matter, including solid and liquid organic waste, but excluding fuel made from oil, natural gas, coal or lignite, or any product thereof.

1. Biofuel storage and blending equipment does not include equipment used only for denaturing ethyl alcohol.

D. INCENTIVE AMOUNTS. The tax deduction amount is 55% of the amortizable costs in the 1st year and 5% per year in the next 9 years.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deduction is taken over 10 years.

G. MISCELLANEOUS.

20.04 Kansas state property tax exemption for biofuel storage and blending equipment

A. GENERAL DESCRIPTION. Kansas provides a property tax exemption in the amount of 100% of the property tax due biofuel storage and blending equipment. *Kan. Stat. Ann. §79-232.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owning biofuel storage and blending equipment in service.

C. QUALIFYING ACTIVITY. Taxpayer must own biofuel storage and blending equipment. Biofuel storage and blending equipment is any equipment which is used for storing and blending petroleum-based fuel and biodiesel, ethanol or other biofuel and is installed at a fuel terminal, refinery or biofuel production plant. Biofuel is fuel made from organic matter, including solid and liquid organic waste, but excluding fuel made from oil, natural gas, coal or lignite, or any product thereof.

1. Biofuel storage and blending equipment does not include equipment used only for denaturing ethyl alcohol.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

20.05 Kansas state income tax deduction for biomass-to-energy plant property

A. GENERAL DESCRIPTION. Kansas provides an income tax deduction in the amount of 55% of the amortizable costs of biomass-to-energy plant property. *Kan. Stat. Ann. §79-32,237.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer placing biomass-to-energy plant property in service.

C. QUALIFYING ACTIVITY. Taxpayer must place in service biomass-to-energy plant property. Biomass-to-energy plant is an industrial process plant, where biomass is processed to produce annually any of the following, and coproducts: (1) not less than 500,000 gallons of cellulosic alcohol; (2) liquid or gaseous fuel or energy in a quantity having BTU value equal to or greater than 500,000 gallons of cellulosic alcohol; or (3) oil produced for direct conversion into fuel in a quantity having BTU value equal to or greater than 500,000 gallons of cellulosic alcohol. Biomass is any organic matter available on a renewable or recurring basis, including solid and liquid organic waste.

1. Biomass does not include: (1) petroleum oil, natural gas, coal and lignite, and any products thereof; and (2) corn or grain sorghum suitable for human consumption.

D. INCENTIVE AMOUNTS. The tax deduction amount is 55% of the amortizable costs in the 1st year and 5% per year in the next 9 years.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deduction is taken over 10 years.

G. MISCELLANEOUS.

20.06 Kansas state property tax exemption for biomass-to-energy plant property

A. GENERAL DESCRIPTION. Kansas provides a property tax exemption in the amount of 100% of

the property tax due biomass-to-energy plant property. *Kan. Stat. Ann. §79-229.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owning biomass-to-energy plant property in service.

C. QUALIFYING ACTIVITY. Taxpayer must own biomass-to-energy plant property. Biomass-to-energy plant is an industrial process plant, where biomass is processed to produce annually any of the following, and coproducts: (1) not less than 500,000 gallons of cellulosic alcohol; (2) liquid or gaseous fuel or energy in a quantity having BTU value equal to or greater than 500,000 gallons of cellulosic alcohol; or (3) oil produced for direct conversion into fuel in a quantity having BTU value equal to or greater than 500,000 gallons of cellulosic alcohol. Biomass is any organic matter available on a renewable or recurring basis, including solid and liquid organic waste.

1. Biomass does not include: (1) petroleum oil, natural gas, coal and lignite, and any products thereof; and (2) corn or grain sorghum suitable for human consumption.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

20.07 Kansas state income tax deduction for renewable electric cogeneration facility

A. GENERAL DESCRIPTION. Kansas provides an income tax deduction in the amount of 55% of the amortizable costs of renewable electric cogeneration facility. *Kan. Stat. Ann. §79-32,249.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer placing renewable electric cogeneration facility in service.

C. **QUALIFYING ACTIVITY.** Taxpayer must place in service renewable electric cogeneration facility. A renewable electric cogeneration facility is a facility which generates electricity utilizing renewable energy resources or technologies and which is owned and operated by the owner of an industrial, commercial or agricultural process to generate electricity for use in such process to displace current or provide for future electricity use.

1. Renewable energy resources or technologies includes wind, solar, photovoltaic, biomass, hydropower, geothermal and landfill gas resources or technologies.

D. **INCENTIVE AMOUNTS.** The tax deduction amount is 55% of the amortizable costs in the 1st year and 5% per year in the next 9 years.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax deduction is taken over 10 years.

G. **MISCELLANEOUS.**

20.08 Kansas state sales tax exemption for electricity sold through electric vehicle charging stations

A. **GENERAL DESCRIPTION.** Kansas provides an sales tax exemption in the amount of 100% of retail sales of electricity through electric vehicle charging stations. *Kan. Stat. Ann. §66-104; H.B. 2145 (2021).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer Public Utilities. A public utility is every corporation, company, individual, association of persons, their trustees, lessees or receivers, that now or hereafter may own, control, operate or manage, except for private use, any equipment, plant or generating machinery, or any part thereof, for the transmission of telephone messages or for the transmission of telegraph messages in or through any part of the state, or the conveyance of oil and gas through pipelines in or through any part of the state, except pipelines less than 15 miles in length and not operated in connection with or for the general commercial

supply of gas or oil, and all companies for the production, transmission, delivery or furnishing of heat, light, water or power. Public utility also includes that portion of every municipally owned or operated electric or gas utility located in an area outside of and more than three miles from the corporate limits of such municipality, but regulation of the rates, charges and terms and conditions of service of such utility within such area shall be subject to commission regulation.

C. **QUALIFYING ACTIVITY.** Taxpayer must sell electricity that is purchased through a retail electric supplier in the certified territory of such retail electric supplier for the sole purpose of the provision of electric vehicle charging service to end users.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of retail sales of electricity through electric vehicle charging station.

E. **INCENTIVE LIMITS**

F. **INCENTIVE TIMEFRAME**

G. **MISCELLANEOUS**

21. Kentucky State Tax Incentives for Renewable Energy and Energy Efficiency

21.01 Kentucky state corporate income tax credit for renewable energy facilities

A. GENERAL DESCRIPTION. Kentucky provides an income tax credit in the amount of 50% of the investment in renewable energy facilities. *Ky. Rev. Stat. Ann. §154.27-010 et seq.; 307 Ky. Admin. Regs. 1:040; H.B. 552 (2010); H.B. 589 (2010).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations constructing, retrofitting or upgrading facilities that generate power from renewable resources.

1. Taxpayers must be certified by the KY Economic Development Finance Authority.

C. QUALIFYING ACTIVITY. Taxpayer must construct, retrofit or upgrade a renewable energy facility. A renewable energy facility is one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower, energy-efficient alternative fuel, natural gas alternative fuel or similar renewable resources.

1. Qualifying electricity must be sold to an unrelated party.
2. Qualifying renewable energy facilities must have a minimum of \$1 million in capital expenditures.
3. Qualifying energy-efficient alternative fuel facilities and biomass facilities must have a minimum of \$25 million in capital expenditures.

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the capital investment.

E. INCENTIVE LIMITS. The maximum tax credit amount is 50% of the capital investment.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS

21.02 Kentucky state sales tax exemption for renewable energy facilities

A. GENERAL DESCRIPTION. Kentucky provides a sales tax exemption for renewable energy facility property. *Ky. Rev. Stat. Ann. §154.27-010 et seq.; 103 Ky. Admin. Regs. 31:190; H.B. 552 (2010); H.B. 589 (2010).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of property for facilities that generate power from renewable resources.

1. Taxpayer must be certified by the KY Economic Development Finance Authority.

C. QUALIFYING ACTIVITY. Taxpayer must purchase property for renewable energy facilities. A renewable energy facility is defined as one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower, energy-efficient alternative fuel, natural gas alternative fuel or similar renewable resources.

1. Qualifying electricity must be sold to an unrelated party.
2. Qualifying renewable energy facility must have a minimum \$1 million in capital expenditures.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The maximum tax exemption period is 25 years.

G. MISCELLANEOUS.

21.03 Kentucky state income tax credit for biodiesel and renewable diesel

A. GENERAL DESCRIPTION. Kentucky provides an income tax credit in the amount of \$1.00 per gallon for producing and blending biodiesel and renewable diesel. *Ky. Rev. Stat. Ann. §141.422 et seq.; Ky. Admin. Regs. 103 §15:140(4); L. 2012, H.B. 441 (2012).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations or individuals producing or blending biodiesel and renewable diesel.

1. Taxpayer must be certified by the KY Department of Revenue.
2. Taxpayer agriculture cooperatives formed as limited cooperative associations may apportion the tax credit among patron members of the association.

C. **QUALIFYING ACTIVITY.** Taxpayer must produce or blend biodiesel and renewable diesel. Biodiesel is a renewable, biodegradable, mono alkyl ester combustible liquid fuel derived from agriculture crops, agriculture plant oils, agriculture residues, animal fats or waste products that meets current American Society for Testing and Materials specification D6751 for biodiesel fuel (B100) blend stock distillate fuels. Blended biodiesel is a blend of biodiesel with petroleum diesel so that the percentage of biodiesel in the blend is at least 2% (B2 or greater). Renewable diesel is a renewable, biodegradable, non-ester combustible liquid that is derived from biomass resources and meets the current American Society for Testing and Materials Specification D396 for fuel oils intended for use in various types of fuel oil burning equipment, D975 for diesel fuel oils suitable for various types of diesel fuel engines or D1655 for aviation turbine fuels.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$1.00 per biodiesel gallon produced by a biodiesel producer, \$1.00 per gallon of biodiesel used in the blending process and \$1.00 per gallon of renewable diesel produced by a renewable diesel producer.

E. **INCENTIVE LIMITS.** The statewide maximum annual tax credit amount is \$10 million. If the tax credit exceeds the statewide maximum annual tax credit amount, the tax credit will be prorated among approved producers and blenders.

F. **INCENTIVE TIMEFRAME.** Taxpayer must apply for the tax credit by January 15 of the preceding calendar year.

G. **MISCELLANEOUS.**

21.04 Kentucky state income tax credit for cellulosic ethanol or ethanol fuel

A. **GENERAL DESCRIPTION.** Kentucky provides an income tax credit in the amount of \$1.00 per gallon for producing cellulosic ethanol fuel. Ky. Rev. Stat. Ann. §141.4244; Ky. Rev. Stat. Ann. §141.422; Ky. Rev. Stat. Ann. §141.4242; Ky. Admin. Regs. §15:110, 120 and 140.

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations, limited liability entities or individuals producing cellulosic ethanol or ethanol.

1. Taxpayer must be certified by the KY Department of Revenue.
2. Taxpayer pass-through entities claiming the tax credit must apply the tax credit based on distributive share.

C. **QUALIFYING ACTIVITY.** Taxpayer must produce cellulosic ethanol or ethanol. Cellulosic ethanol is ethyl alcohol for use as a motor fuel that meets the current American Society for Testing and Materials specification D4806 for ethanol that is produced from cellulosic biomass materials of any lignocellulosic or hemicellulosic material that is available on a renewable or recurring basis including: plant wastes from industrial processes such as sawdust and paper pulp; energy crops grown specifically for fuel production such as switchgrass or agricultural plant residues such as corn stover, rice hulls, sugar cane and cereal straws. Ethanol is ethyl alcohol produced from corn, soybeans, or wheat for use as a motor fuel that meets the current American Society for Testing and Materials specification D4806 for ethanol.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$1.00 per cellulosic ethanol or ethanol gallon produced.

E. **INCENTIVE LIMITS.** The statewide maximum annual tax credit amounts are \$5 million for cellulosic ethanol and \$5 million for ethanol. If the amount of credit exceeds the statewide maximum annual tax credit amounts, the tax credit will be prorated among approved producers.

F. INCENTIVE TIMEFRAME. Taxpayer must apply for the tax credit by January 15 of the preceding calendar year.

G. MISCELLANEOUS.

21.05 Kentucky state sales tax exemption for energy efficient manufacturing machinery and equipment

A. GENERAL DESCRIPTION. Kentucky provides a sales tax exemption in the amount of 100% of the tax on energy efficient manufacturing machinery and equipment. *Ky. Rev. Stat. Ann. §139.518; 103 Ky. Admin. Regs. 31:200.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of new or replacement equipment for an energy efficiency project.

1. Taxpayer must be certified by the KY Cabinet for Economic Development and the KY Department of Revenue prior to purchasing new or replacement equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase equipment for an energy efficiency project. An energy efficiency project is a project that decreases the measurable amount of energy used by the facility by at least 15% percent while maintaining or increasing the production for the same period.

1. Qualifying equipment does not include windows, lighting or other improvements to buildings and repair, replacement and spare parts.
2. Taxpayer must: (1) determine the total energy or energy-producing fuels consumed within all combined manufacturing at one plant facility during the 12-month period immediately after the new or replacement machinery or equipment is placed in service; (2) subtract the total energy or energy-producing fuels amounts determined from the total energy or energy-producing fuels amounts submitted with the application for preapproval; and (3) divide any reduction in energy or energy-producing fuels calculated by the total amount of energy or energy-

producing fuels consumed within all combined manufacturing at the single plant facility.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The maximum tax exemption period is 25 years.

G. MISCELLANEOUS.

21.06 Kentucky state sales and use tax rebate for renewable energy facilities

A. GENERAL DESCRIPTION. Kentucky provides a sales and use tax rebate in the amount of 100% of the sales and use tax paid for personal property used to construct, retrofit, or upgrade renewable energy facilities. *Ky. Rev. Stat. Ann. §154.27-070.*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer corporations constructing, retrofitting or upgrading facilities that generate power from renewable resources.

1. Taxpayers must be certified by the KY Economic Development Finance Authority.

C. QUALIFYING ACTIVITY. Taxpayer must construct, retrofit or upgrade a renewable energy facility. A renewable energy facility is one that generates at least 50 kW of electricity from solar power or at least 1 MW from wind power, biomass resources, landfill gas, hydropower, energy-efficient alternative fuel, natural gas alternative fuel or similar renewable resources.

D. INCENTIVE AMOUNTS. The tax refund amount is 100% of the sales and use tax paid on the purchase of tangible personal property, including but not limited to materials, machinery, and equipment used to construct, retrofit, or upgrade a qualifying renewable energy facilities.

1. The tax refund is reduced by the vendor compensation provided under *Ky. Rev. Stat. Ann. §139.570.*
2. Qualifying personal property does not include property purchase before the

activation date or operating supplies, repair, replacement or spare parts.

E. INCENTIVE LIMITS. The maximum tax refund amount is 100% of the sales and use tax paid.

F. INCENTIVE TIMEFRAME. The tax refund expires upon the sooner of: (i) completion of the construction, retrofit, or upgrade of the qualifying renewable energy facilities; or (ii) 5 years from the activation date of the qualifying renewable energy facilities.

G. MISCELLANEOUS.

21.07 Kentucky state property tax financing for energy project assessment districts

A. GENERAL DESCRIPTION. Kentucky provides a property tax financing option for municipalities for energy project assessment districts. *Ky. Rev. Stat. Ann. §65.; H.B. 100 (2015)*.

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners of energy improvement property.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance energy improvement property. Energy improvement property is any permanent improvement fixed to real property and intended to increase the efficiency of energy use or decrease water or energy consumption or demand, generate electricity, provide thermal energy, or regulate temperature, including but not limited to a product, device, technology, or interacting group of products, devices, or technologies on the customer's side of an electric, gas, water, or other energy meter.

1. Qualifying real property does not include residential property consisting of fewer than five (5) units.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

21.08 Kentucky state income tax credit for environmental stewardship manufacturing

A. GENERAL DESCRIPTION. Kentucky provides an income tax credit in the amount of 100% of the income tax generated by eligible companies manufacturing environmental stewardship products in environmental stewardship projects. *Ky. Rev. Stat. Ann. §154.48-010 et seq.; Kentucky Environmental Stewardship Act (KESA) fact sheet, Kentucky Cabinet for Economic Development, 06/01/2015*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer manufacturers of environmental stewardship products.

C. QUALIFYING ACTIVITY. Taxpayer must invest in an environmental stewardship project utilized by an approved company or its affiliate to manufacture an environmental stewardship product. An environmental stewardship product is any new manufactured product or substantially improved existing manufactured product that has a lesser or reduced adverse effect on human health and the environment or provides for improvement to human health and the environment when compared with existing products or competing products that serve the same purpose. Such products may include, but are not limited to, those which contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxics disposed or consumed, but shall not include products that are the result of the production of energy or energy producing fuels.

1. The environmental stewardship product must be certified by the KY Energy and Environment Cabinet.

D. INCENTIVE AMOUNTS. The tax credit amount is the lesser of: (i) 100% of the income tax generated through the inducement period or (ii) qualifying eligible costs that have not been recovered. Qualifying eligible costs include: (i) the cost of contract bonds and of insurance of all kinds that may be required or necessary during the course of acquisition, construction, equipping, and

installation of an environmental stewardship project which is not paid by the vendor, supplier, deliveryman, contractor, or otherwise provided; (ii) all costs of architectural and engineering services, including estimates, plans and specifications, preliminary investigations, and supervision of construction, rehabilitation and installation, as well as for the performance of all the duties required by or consequent upon the acquisition, construction, equipping, and installation of an environmental stewardship project; (iii) all costs required to be paid under the terms of any contract for the acquisition, construction, equipping, and installation of an environmental stewardship project; (iv) all costs paid for by the approved company that are required for the installation of utilities, including but not limited to water, sewer, sewer treatment, gas, electricity, communications, and access to transportation, and including off-site construction of the facilities necessary for implementation of an environmental stewardship project.

1. Qualifying eligible costs include eligible skills upgrade training costs expended after preliminary approval of the environmental stewardship project.

E. INCENTIVE LIMITS. The project eligible costs must be equal to or greater than \$5 million. The maximum annual tax credit allowed to Taxpayer is 25% of the total authorized inducement.

F. INCENTIVE TIMEFRAME. The tax credit period is 4 years. The inducement period is 10 years.

G. MISCELLANEOUS.

22. Louisiana State Tax Incentives for Renewable Energy and Energy Efficiency

22.01 Louisiana state income tax credit for residential solar electric systems

A. GENERAL DESCRIPTION. Louisiana provides an income tax credit in the amount 50% of cost of installing of solar energy systems. La. Rev. Stat. Ann. §47:6030; La. Admin. Code §61:I.1907; La. Dept. of Rev., Private Letter Ruling 09-018 ; Rev., Private Letter Ruling 10-016; Louisiana Revenue Bulletin Louisiana Revenue Information Bulletin 14-006, 01/10/2014; Louisiana Revenue Bulletin Louisiana Revenue Information Bulletin 14-016, 08/13/2014; Louisiana Revenue Information Bulletin 15-026, 07/1/2015; Announcement, La. Dept. Rev., 01/20/2016; H.B. 705 (2013); H.B. 779 (2015); Press Release, La. Dept. Rev., 07/19/2016; H.B. 187 (2017); Solar Credit Frequently Asked Questions, La. Dept. of Rev., 07/13/2017; Louisiana Revenue Information Bulletin No. 17-012, 07/24/2017; H.B. 374 (2018).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations or individuals installing solar energy systems.

1. Taxpayer corporate partners or members claim their share of the tax credit on their corporation income tax or franchise tax returns. Taxpayer individual partners or members claim their share of the tax credit on their individual income tax or franchise tax returns. Taxpayer estates or trusts partners or members claim their share of the tax credit on their fiduciary income tax returns.

C. QUALIFYING ACTIVITY. Taxpayer must purchase or lease and install solar energy systems at a single-family residence or residential rental apartment project. Solar energy system is a solar electric system. Solar electric system is a system consisting of photovoltaic panels with the primary purpose of converting sunlight to electrical energy and all equipment and apparatus necessary to connect, store, and process the electrical energy for connection to and use by an electrical load. Solar electric systems include grid-connected net metering systems with or without

battery backup, standalone alternating current (AC) systems, and stand-alone direct current (DC) system.

1. A qualifying system must: (i) be sold by and installed by a person who is licensed by the Louisiana State Licensing Board for Contractors; (ii) be compliant with the requirements of the federal American Recovery and Reinvestment Act (ARRA), including but not limited to all major components such as the inverter, racking, and solar modules; and (iii) be installed on the property of the residence to which the electrical, mechanical, or thermal energy is delivered.

2. Leased systems must provide no more than 6 kW of energy and not cost more than: \$3.50 per watt for systems installed in 2014, and \$2.00 per watt and for systems installed in 2015-2017.

3. Qualifying systems do not include supplemental components, the cost of purchase and installation of air conditioning or heating units, duct work, and components not necessary for the solar energy system, and the amount of referral fee received by Taxpayer in exchange for a list of persons who may be interested in obtaining a solar energy system.

D. INCENTIVE AMOUNTS. The tax credit amount is the lesser of (i) 50% of the first \$20,000 of the cost of each system; and (ii) \$2.00 per DC watt; and 38% of the first \$20,000 of the cost of each leased system. Cost is the reasonable and prudent costs for the equipment and installation of the solar electric and shall not include any lease management fee or any inducement to make a purchase, including but not limited to: rebates; prizes; gift certificates; trips; additional energy items or services, except energy audits offered at no charge to the purchaser; or any other thing of value given by a seller, installer, or equipment manufacturer as an inducement to buy a solar electric.

1. The use of shared inverters does not reduce the number of systems installed for purposes of calculating the tax credit.

E. **INCENTIVE LIMITS.** The maximum tax credit is \$10,000 per installed system and \$7,600 per installed leased system. The maximum statewide annual tax credit amount is \$20 million. The maximum statewide annual tax credit amount for 2017 is \$10 million.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2016. The tax credit must be fully claimed in the taxable year in which the qualifying system is installed and placed in service, or the year in which the residential property is sold if the qualifying system is installed on a new home or apartment building. The tax credit is refundable. An amended return claiming a tax credit for a system which was purchased and installed on or before December 31, 2015 must be filed with the department before September 1, 2017.

G. **MISCELLANEOUS.** The tax credit may be combined with any federal tax incentive, but it may not be combined with any other state tax incentive.

22.02 Louisiana state income tax credit for green job industry investments

A. **GENERAL DESCRIPTION.** Louisiana provides an income tax credit in amounts ranging from 10-25% of expenditures or investments for the construction, repair, or renovation of state-certified green projects. *La. Rev. Stat. Ann. §47:6037; S.B. 178 (2017).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer constructors or investors in state-certified green projects.

1. Taxpayer must be certified by the LA Department of Economic Development.
2. Taxpayer must not be in default on a loan made or guaranteed by the state or have ever declared bankruptcy under which an obligation of the company or person to pay or repay public funds or monies was discharged as a part of such bankruptcy.
3. Taxpayer may, on a one-time basis, transfer the tax credit, or any refund of an overpayment, to an individual or other entity, including, without limitation, a bank or other lender.

C. **QUALIFYING ACTIVITY.** Taxpayer must construct or invest state-certified green projects. A state-certified green project is a capital infrastructure project directly related to green job industries and related movable and immovable property and equipment, or other facility which supports and is a necessary component of such facility. Green job industry include energy efficiency and renewable energy industries, energy-efficient building, construction, and retrofit industries, the renewable electric power industry, the energy efficient and advanced drive train vehicle industry, the biofuels industry, the deconstruction and materials use industries, the energy efficiency assessment industry serving the residential, commercial, or industrial sectors, and manufacturers that produce sustainable products using environmentally sustainable processes and materials approved by a nationally recognized high performance environmental building rating system, or that have the ENERGY STAR designation from the U.S. Environmental Protection Agency.

1. Qualifying state-certified green projects include facilities that can be used for other purposes not directly related to the green job industry, if a determination is made that the multiple-use facility supports and is necessary to secure support industries for the green job industry, and Taxpayer provides sufficient contractual assurances that the facility will be used for support industries or as a component of them for the useful life of the facility.

D. **INCENTIVE AMOUNTS.** The tax credit amount is the following percentage of Taxpayer's base investment in a qualifying state-certified green project: 10% if greater than \$100,000 and less than or equal to \$300,000; 20% if greater than \$300,000 and less than or equal to \$1 million; and 25% if greater than \$1 million.

1. An additional tax credit is allowed in the amount of 10% of the base investment expended on payroll for Louisiana residents employed in connection with the construction of a state-certified green project.
2. An additional tax credit is allowed in the amount of 1% of the payroll for employing Louisiana residents in connection with a state-certified green project who are graduates of

an institution within the Louisiana Community and Technical College System or graduates of an apprenticeship program registered with the Louisiana Workforce Commission.

3. Taxpayer's base investment must be certified by the LA Department of Economic Development.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$1 million per project. The statewide maximum annual tax credit amount is \$5 million. The tax credit is refundable.

F. INCENTIVE TIMEFRAME. The tax credit is available when the LA Department of Natural Resources receives a letter from the U.S. Department of Energy awarding Louisiana an obligation of funding in the amount of at least \$5 million per year, for a minimum of 3 years. The tax credit expires June 30, 2017.

1. Qualifying state-certified green projects must have 25% of the total base investment certified, verified, and approved as expended before any tax credit can be earned and 50% of the total base investment expended before the end of that initial 2-year period.

G. MISCELLANEOUS. The tax credit may be combined with any federal tax incentive, but it may not be combined with any other state tax incentive.

22.03 Louisiana state property tax financing option for sustainable energy financing districts

A. GENERAL DESCRIPTION. Louisiana provides a property tax financing option for municipalities for sustainable energy financing districts. *La. Rev. Stat. Ann. §33:130.790 through 130.793; S.B. 224 (2009).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing energy improvements.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance energy improvements on immovable residential or commercial property. Energy improvements include: insulation in walls, roofs, floors, foundations, and heating/cooling

distribution systems; storm and multi-glazed windows and doors; heat absorbing/reflective glazed and coated window and door systems, additional glazing, reductions in glass area, and other energy-efficient window and door systems; automatic energy control systems; HVAC system upgrades and replacements; caulking and weather stripping; daylighting and efficient lighting; and energy-recovery systems.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS. The maximum tax financing amount for caulking and weather stripping is \$1,500.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

22.04 Louisiana state income tax credit for qualified clean-burning motor vehicle fuel property

A. GENERAL DESCRIPTION. Louisiana provides an income tax credit in the amount of 30% the cost of qualifying clean-burning motor vehicle fuel property. *La. Rev. Stat. Ann. §47:6035; La. Dept. of Rev., Revenue Information Bulletin 09-029, 10/8/09; La. Admin. Code 61:1:1913; Louisiana Revenue Information Bulletin No. 13-023, 09/12/2013; Louisiana Revenue Information Bulletin No. 15-011, 07/06/2015; H.B. 629 (2015); S.B. 243 (2017); Louisiana Revenue Bulletin No. 18-008, 02/09/2018; S.B. 8 (2021); Louisiana Revenue Information Bulletin No. 21-016, 06/25/2021.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of qualifying clean-burning motor vehicle fuel property.

C. QUALIFYING ACTIVITY. Taxpayer must purchase qualifying clean-burning motor vehicle fuel property registered or located in the state. Qualifying clean-burning motor vehicle fuel property is equipment necessary for a motor vehicle to operate on an alternative fuel. Alternative fuel is electricity, natural gas, liquified petroleum gas, and any nonethanol-based

advanced biofuel. Qualifying clean-burning motor vehicle fuel property includes: (1) property to modify a motor vehicle which is propelled by gasoline or diesel so that it can be propelled by an alternative fuel; (2) a new motor vehicle purchased at retail originally equipped to be propelled by an alternative fuel; and (3) property that is directly related to the delivery of an alternative fuel into the fuel tank of motor vehicles propelled by alternative fuel, including compression equipment, storage tanks, and dispensing units for alternative fuel at the point where the fuel is delivered.

1. Qualifying clean-burning motor vehicle fuel property does not include “flex-fuel” vehicles that include only a single fuel storage and delivery system and that retain the capability to be propelled by petroleum gasoline or petroleum diesel.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the cost of qualifying clean-burning motor vehicle fuel property. After June 30, 2018, the tax credit amount is 50% of the cost of qualifying clean-burning motor vehicle fuel property.

1. The cost of qualified clean-burning motor vehicle fuel property is the cost of property that is directly related to the delivery of an alternative fuel into the fuel tank of motor vehicles propelled by alternative fuel, including compression equipment, storage tanks, and dispensing units for alternative fuel at the point where the fuel is delivered, provided the property is installed and located in Louisiana and no credit previously has been claimed on the cost of such property.
2. The tax credit amount may be 7.2% of the cost of the vehicle or \$1,500, whichever is less, where Taxpayer is unable to determine the exact cost attributable to a qualifying vehicle or elects not to determine the exact cost attributable. After June 30, 2018, the tax credit amount may be 10% of the cost of the vehicle or \$3,000, whichever is less.
3. No tax credit is allowed for property for which a tax credit has been previously claimed.

E. INCENTIVE LIMITS. The tax credit is not refundable after December 31, 2017.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2021. The tax credit is allowed for the tax period in which the property is purchased and installed.

G. MISCELLANEOUS.

22.05 Louisiana state property tax exemption for residential solar energy systems

A. GENERAL DESCRIPTION. Louisiana provides a property tax exemption in the amount of 100% of the tax on residential solar energy systems. *La. Rev. Stat. Ann. §47:1706*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of residential solar energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own solar energy systems on owner-occupied residential buildings. A solar energy system is any device that uses the heat of the sun as its primary energy source and is used to heat or cool the interior of a structure or swimming pool, or to heat water for use within a structure or swimming pool. Solar energy systems include systems utilizing solar collectors, solar cells and passive roof ponds.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

22.06 Louisiana state sales tax exemption for unblended biodiesel

A. GENERAL DESCRIPTION. Kentucky provides a sales tax exemption in the amount of 100% of the tax due for unblended biodiesel. *La. Rev. Stat. Ann. §47:301(7)(j), (18)(k), and (10)(y)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of unblended biodiesel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase unblended biodiesel. Unblended biodiesel is a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of the definition provided for in D 6751 of the American Society of Testing and Materials (ASTM D 6751), before such fuel is blended with a petroleum-based diesel fuel.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

23. Maine State Tax Incentives for Renewable Energy and Energy Efficiency

23.01 Maine state sales tax refund for qualifying community wind energy property

A. GENERAL DESCRIPTION. Maine provides a sales tax refund in the amount of 100% of the tax paid on qualifying community wind energy property. *36 Me. Rev. Stat. Ann. §2017; 35 Me. Rev. Stat. Ann. §3402.*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer contractors or generators of community wind energy projects purchasing community wind energy property.

1. Taxpayer must be certified by the ME Public Utilities Commission and fill out an application with ME Revenue Services.

C. QUALIFYING ACTIVITY. Taxpayer must purchase community wind energy property. Community wind energy property is tangible personal property that has been physically incorporated into real property in the development of a community wind project having nameplate capacity of 10 megawatts (MW) or less.

D. INCENTIVE AMOUNTS. The tax refund amount is 100% of sales tax paid.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Taxpayer must apply for the tax refund within 3 years of the personal property being physically incorporated into real property.

G. MISCELLANEOUS.

23.02 Maine state income tax credit for biofuel production

A. GENERAL DESCRIPTION. Maine provides an income tax credit in the amount of \$0.05 per gallon of biofuel production. *36 Me. Rev. Stat. Ann. §5219-X.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers of biofuel.

1. Taxpayer must be certified by the ME Commissioner of Environmental Protection regarding the biofuel being produced, including the quantity of biofuel products, the type of forest or agricultural product being utilized, the nature and composition of the biofuel being produced, the proportion and composition of any nonbiofuel with which the biofuel is blended, the type of application for which it is intended to be used, and the BTU equivalent of the biofuel as compared to the BTU value of 1 gallon of gasoline.

C. QUALIFYING ACTIVITY. Taxpayer must produce biofuel. Biofuel is any commercially produced liquid or gas used to propel motor vehicles or otherwise substitute for liquid or gaseous fuels that is derived from agricultural crops or residues or from forest products or by-products, as distinct from petroleum or other fossil carbon sources.

1. Biofuel must be liquid or gaseous with a BTU equivalent to that of 1 gallon of gasoline that replaces the use of petroleum or liquid fuels derived from other fossil carbon sources.

2. Biofuel includes ethanol, methanol derived from biomass, levulinic acid, biodiesel, pyrolysis oils from wood, hydrogen or methane from biomass, or combinations of any of the above that may be used to propel motor vehicles either alone or in blends with conventional gasoline or diesel fuels or that may be used in place of petroleum products in whole or in part to fire heating devices or any stationary power device.

3. Biofuel must be offered for sale and income must be derived from the commercial production of biofuel.

4. Biofuel includes blends with petroleum or other nonbiofuels only on the portion of that blend that the biofuel constitutes.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.05 per gallon of biofuel produced.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS.

23.03 Maine state personal property tax exemption for solar and wind energy equipment

A. GENERAL DESCRIPTION. Maine provides a property tax exemption in the amount of 100% of the tax on solar and wind energy equipment that generates heat or electricity. 36 §655 sub §1K,U *H.B. 1040 (2019); Property Tax Bulletin No. 29, Maine Revenue Services, 07/26/2021.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar and wind energy equipment that generates heat or electricity.

C. QUALIFYING ACTIVITY. Taxpayer must own solar and wind energy equipment that generates heat or electricity.

1. Energy generated must be (i) used on the site where the property is located, or (ii) transmitted through the facilities of a transmission and distribution utility, and a utility customer or customers receive a utility bill credit for the energy generated by the equipment pursuant to Title 35-A.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Taxpayer must file an exemption claim report with the assessor on or before April 1st of the first property tax year.

G. MISCELLANEOUS.

23.04 Maine sales and use tax refund for battery energy storage systems

A. GENERAL DESCRIPTION. Maine provides a sales and use tax refund for a Taxpayer which purchases a qualifying battery energy storage system. *H.B. 1512 (2022); 36 MRSA §2021.*

B. ELIGIBLE TAXPAYERS. The tax refund is available to Taxpayer purchasers of qualifying battery energy storage systems.

C. QUALIFYING ACTIVITY. Qualifying battery energy storage system is an energy storage system that is a battery energy storage system with a capacity of 50 megawatts or greater that is located at a single site in Maine and includes all integral parts and accessories. An energy storage system is commercial machinery or equipment that is capable of absorbing energy, storing the energy for a period of time and discharging the energy after it has been stored.

D. INCENTIVE AMOUNTS. The tax refund amount is 100% of the sales and use tax paid.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Qualifying battery energy storage system must be purchased on or after January 1, 2023, and before December 31, 2025. Taxpayer must submit a claim for reimbursement within three years of paying the tax.

G. MISCELLANEOUS.

24. Maryland State Tax Incentives for Renewable Energy and Energy Efficiency

24.01 Maryland state income tax credit for renewable energy production

A. GENERAL DESCRIPTION. Maryland provides an income tax credit in the amount of \$0.0085/kWh of renewable energy produced. *Md. Code Ann. §10-720; H.B. 464 (2010); S.B. 958 (2011); S.B. 936 (2016).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations or individuals producing electricity generated from renewable sources.

1. Taxpayer must be certified by the MD Energy Administration.

C. QUALIFYING ACTIVITY. Taxpayer must produce and sell to third party electricity generated by wind, geothermal energy, solar energy, hydropower, small irrigation power, municipal solid waste and biomass resources. Biomass resources include anaerobic digestion, landfill gas, waste water-treatment gas, and cellulosic material derived from forest-related resources (excluding old-growth timber and mill residues consisting of sawdust or wood shavings), from waste pallets and crates, nonhazardous waste material segregated from other waste materials, or from agricultural sources.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.0085/kWh for electricity generated by eligible resources.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$500,000 annually, and \$2.5 million over a 5-year period.

F. INCENTIVE TIMEFRAME. The tax credit period is 5 years. The tax credit expires December 31, 2018. The tax credit is refundable.

1. The tax credit may be canceled if over a 3-year period, Taxpayer does not claim on average at least 10% of the maximum tax credit amount stated in the certificate.

G. MISCELLANEOUS.

24.02 Maryland state property tax credit for solar, geothermal, and energy conservation devices

A. GENERAL DESCRIPTION. Maryland provides a property tax credit in the amount of 100% the cost of solar, geothermal, and energy conservation devices. *Md. Code Ann. §9-203.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of buildings with a solar, geothermal or qualifying energy conservation device.

C. QUALIFYING ACTIVITY. Taxpayer must equip buildings with a solar, geothermal or qualifying energy conservation device.

1. Qualifying devices may be used to heat or cool the structure, to generate electricity to be used in the structure, or to provide hot water for use in the structure.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the cost of solar, geothermal, and energy conservation devices.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.03 Maryland state property tax exemption for renewable energy systems

A. GENERAL DESCRIPTION. Maryland provides a property tax exemption in the amount of 100% of the cost of renewable energy systems. *Md. Code Ann. §7-242; H.B. 1171 (2009); S.B. 621 (2009).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own geothermal, solar photovoltaic (PV), solar hot water system property and residential wind energy equipment.

1. Qualifying solar property includes equipment used to generate electricity that is supplied to the electric grid.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.04 Maryland state property tax financing option for renewable energy and energy-efficiency systems

A. GENERAL DESCRIPTION. Maryland provides a property tax financing option for municipalities for renewable energy and energy-efficiency systems. *Md. Code Ann. §9-1501 et seq.; H.B. 1567 (2009).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer financing renewable energy or eligible energy-efficiency improvements.

C. QUALIFYING ACTIVITY. Taxpayer must finance renewable energy or eligible energy-efficiency improvements.

1. Renewable energy or eligible energy-efficiency improvements for commercial property owners must not have a capacity of more than 100 kw.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.05 Maryland state sales tax exemption for geothermal, solar and wind energy equipment

A. GENERAL DESCRIPTION. Maryland provides a sales tax exemption in the amount of 100% of the tax on geothermal, solar and wind energy

equipment. *Md. Code Ann. §11-230; Md. Regs. Code §03.06.01.43; H.B. 1171 (2009); S.B. 621 (2009).*

B. ELIGIBLE TAXPAYERS. Taxpayer purchasers of geothermal, solar and wind energy equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase of geothermal, solar energy and residential wind energy equipment. Geothermal equipment is equipment that uses ground loop technology to heat and cool a structure. Solar energy equipment is equipment that uses solar energy to heat or cool a structure, generate electricity to be used in a structure or supplied to the electric grid, or provide hot water for use in a structure. Residential wind energy equipment is equipment installed on a residential property that uses wind energy to generate electricity for use in a residential structure on that property.

1. Solar energy equipment does not include equipment that is part of a non-solar energy system or that uses any type of recreational facility or equipment as a storage medium.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.06 Maryland state property tax exemption for solar and geothermal heating and cooling systems

A. GENERAL DESCRIPTION. Maryland provides a property tax assessment exemption in the amount of 100% of the value of solar and geothermal heating and cooling systems. *Md. Code Ann. §8-240.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar and geothermal heating and cooling system property.

C. **QUALIFYING ACTIVITY.** Taxpayer must own solar and geothermal heating and cooling systems.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the property tax due.

E. **INCENTIVE LIMITS**

F. **INCENTIVE TIMEFRAME**

G. **MISCELLANEOUS**

24.07 Maryland state income tax credit for cellulosic ethanol technology research and development

A. **GENERAL DESCRIPTION.** Maryland provides an income tax credit in the amount of 10% of costs for cellulosic ethanol technology research and development. *Md. Code Ann. §10-726; Md. Regs. Code §24.05.12.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayers incurring cellulosic ethanol technology research and development expenses.

1. Taxpayer must be certified by the MD Department of Business and Economic Development.
2. Taxpayer partners or members of a pass-through entity are allocated tax credit amounts as agreed to in writing by the Taxpayer allocatees. If there is no written agreement governing the allocation of the tax credit, the tax credit is allocated in the same proportion as other items are allocated for the taxable year.

C. **QUALIFYING ACTIVITY.** Taxpayer must incur cellulosic ethanol technology research and development expenses. Cellulosic ethanol technology is technology that is used to develop cellulosic biomass for conversion to ethanol fuel.

1. Cellulosic ethanol technology research or development activities must be performed, conducted, or carried on in Maryland.
2. Cellulosic ethanol technology research or development activities must consume all supplies in Maryland.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 10% of cellulosic ethanol technology research and development expenses.

E. **INCENTIVE LIMITS.** The statewide maximum annual tax credit amount is \$250,000. If the total amount of tax credits applied for exceeds the statewide maximum annual tax credit amount, the tax credit is prorated credit amount for each qualifying applicant.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2016. Taxpayer must apply for the tax credit by September 15 of the calendar year following the end of the taxable year in which the qualifying research and development expenses were incurred. The MD Department of Business and Economic Development must issue the certification by December 15th. Taxpayer must file an amended income tax return for the taxable year in which the qualifying research and development expense was incurred, and attach a copy of the MD Department of Business and Economic Development's certification to the amended income tax return. Unused tax credit may be carried forward 15 tax years.

G. **MISCELLANEOUS.** The tax credit amount claimed must be added to federal taxable income to calculate Taxpayer's Maryland modified income.

24.08 Maryland state property tax credit for LEED Silver or better green buildings

A. **GENERAL DESCRIPTION.** Maryland provides a property tax credit in the amount of 100% of the tax on LEED Silver green buildings. *Md. Code Ann. §9-242.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer owners of LEED Silver or better green buildings.

C. **QUALIFYING ACTIVITY.** Taxpayer must own LEED Silver or better green buildings.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 100% of the property tax paid.

E. **INCENTIVE LIMITS**

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.09 Maryland state sales tax exemption for wood heating fuel

A. GENERAL DESCRIPTION. Maryland provides a sales tax exemption in the amount of 100% of tax on wood heating fuel. *Md. Code Ann. §11-207.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of all-wood or refuse-derived fuel used for residential heating purposes.

C. QUALIFYING ACTIVITY. Taxpayer must purchase all-wood or refuse-derived fuel used for residential heating purposes.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.10 Maryland state income tax credit for Heritage Structure Rehabilitation

A. GENERAL DESCRIPTION. Maryland provides an income tax credit in the amount of 25% of the cost of historically certified LEED Gold green buildings. *Md. Code Ann. §5A-303; Md. Regs. Code §§ 34.04.07.00 et seq.; H.B. 475 (2010); H.B. 668 (2012); H.B. 510 (2014); S.B. 759 (2016).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of LEED Gold or better qualified rehabilitated structures.

1. Taxpayer must be certified by the MD Historical Trust and the MD Department of Planning.
2. Taxpayer may allocate the tax credit among its partners, members, or shareholders of an entity in any manner agreed to.

C. QUALIFYING ACTIVITY. Taxpayer must own LEED Gold or better qualified rehabilitated structure. A qualified rehabilitated structure is a building other than a single-family, owner-occupied residence. The rehabilitation must retain specified minimum percentages of internal and external walls and internal framework during the rehabilitation.

1. Qualified rehabilitated structure must be a building that meets or exceeds the current version of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) green building rating system gold rating, or achieves at least a comparable numeric rating according to a nationally recognized, accepted, and appropriate numeric green building rating system, guideline, or standard approved by the Secretaries of Budget and Management and General Services.

2. Qualified rehabilitated structures must meet substantial expenditure thresholds and the U.S. Secretary of the Interior's Standards for Rehabilitation (36 CFR 67). A substantial rehabilitation is the rehabilitation of a structure for which the qualified rehabilitation expenditures over a 24-month period exceed (1) \$5,000 for a single-family, owner-occupied residence; or (2) the greater of the adjusted basis of the property or \$25,000 for all other properties.

3. A single-family, owner-occupied residence is a structure or a portion of a structure occupied by the owner and the owner's immediate family as their primary or secondary residence. Single-family, owner-occupied residence includes a residential unit in a cooperative project owned or leased to a cooperative housing corporation and leased for exclusive occupancy to, and occupied by, a member of the corporation and the member's immediate family.

4. A small commercial project is a rehabilitation of a structure primarily used for commercial, income-producing purposes if the qualified rehabilitation expenditures do not exceed \$500,000.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the qualified rehabilitation expenditure. Qualified rehabilitation expenditure is any amount

that: (i) is properly chargeable to a capital account; (ii) is expended in the rehabilitation of a structure that by the end of the calendar year in which the certified rehabilitation is completed is a certified heritage structure; and (iii) is expended in compliance with a plan of proposed rehabilitation.

1. Qualified rehabilitation expenditure does not include expenditures funded from the following: (1) State or local grants; (2) grants made from the proceeds of tax-exempt bonds issued by the State, a political subdivision of the State, or an instrumentality of the State or of a political subdivision of the State; (3) state tax credit other than the tax credit; or (4) other financial assistance from the State or a political subdivision of the State, other than a loan that must be repaid at an interest rate that is greater than the interest rate on general obligation bonds issued by the State at the most recent bond sale prior to the time the loan is made.

E. INCENTIVE LIMITS. The maximum tax credit amounts are \$3 million for a commercial rehabilitation (any building that is not a single-family, owner-occupied residence) and \$50,000 for all other rehabilitations. The statewide aggregate maximum tax credit amount for small commercial projects is \$4 million.

F. INCENTIVE TIMEFRAME. The tax credit expires June 30, 2022.

G. MISCELLANEOUS. The tax credit may be recaptured during a 5 year period starting during the taxable year in which a certified rehabilitation is completed if any disqualifying work is performed on the certified heritage structure for which the certified rehabilitation has been completed.

24.11 Maryland state sales tax exemption for energy-efficient equipment

A. GENERAL DESCRIPTION. Maryland provides a sales tax exemption in the amount of 100% the tax on energy-efficient appliances. *Md. Code Ann. §11-226; Md. Regs. Code 03.06.01.44; News Release, Maryland Comptroller's Office, 02/08/2022; News Release, Maryland Comptroller's Office, 02/09/2023.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of Energy Star product or solar water heater.

C. QUALIFYING ACTIVITY. Taxpayer must purchase Energy Star product or solar water heater. An Energy Star product is an air conditioner, clothes washer, clothes dryer, furnace, heat pump, standard size refrigerator, compact fluorescent light bulb, dehumidifier, boiler, programmable thermostat, or light-emitting diode (LED) light bulb that has been designated as meeting or exceeding the applicable Energy Star efficiency requirements developed by the U.S. Environmental Protection Agency and the U.S. Department of Energy and is authorized to carry the Energy Star label. A solar water heater is a system composed of equipment designed to heat water by the use of solar energy.

1. A standard size refrigerator is a refrigerator with a factory-built, self-contained cabinet that is marketed for use in a private residence or household, whether or not used in a private residence.

2. A compact fluorescent light bulb is a fluorescent light bulb that has been compressed into the size of a standard-issue screw-in incandescent light bulb.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is the weekend that consists of the Saturday immediately preceding the third Monday in February through the third Monday in February. The tax exemption for light-emitting diode (LED) light bulb expires June 30, 2017.

G. MISCELLANEOUS.

24.12 Maryland state sales tax exemption for electricity from solar and residential wind equipment

A. GENERAL DESCRIPTION. Maryland provides a sales tax exemption in the amount of 100% the tax on electricity from solar and residential wind

equipment. *Md. Code Ann. §11-207(a); H.B. 502 (2011)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of electricity from solar and residential wind equipment.

1. Taxpayer must be an eligible customer-generator. An eligible customer-generator is a customer that owns and operates, leases and operates, or contracts with a third party that owns and operates a biomass, micro combined heat and power, solar, fuel cell, or wind electric generating facility that: (i) is located on the customer's premises or contiguous property; (ii) is interconnected and operated in parallel with an electric company's transmission and distribution facilities; and (iii) is intended primarily to offset all or part of the customer's own electricity requirements.

C. QUALIFYING ACTIVITY. Taxpayer must purchase electricity from solar and residential wind equipment. Residential wind energy equipment is equipment installed on residential property that uses wind energy to generate electricity to be used in a residential structure on the property. Solar energy equipment is equipment that uses solar energy to heat or cool a structure, generate electricity to be used in a structure or supplied to the electric grid, or provide hot water for use in a structure.

1. Solar energy equipment does not include equipment that is part of a nonsolar energy system or that uses any type of recreational facility or equipment as a storage medium.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

24.13 Maryland state sales tax exemption for the manufacturing equipment of Energy Star windows and doors

A. GENERAL DESCRIPTION. Maryland provides a sales tax exemption in the amount of 100% of the tax on the manufacturing machinery or equipment of Energy Star windows and doors. *Md. Code Ann. §11-210(e); H.B. 1301 (2012)*.

B. ELIGIBLE TAXPAYERS. Taxpayer purchasers manufacturing machinery or equipment of Energy Star windows and doors.

C. QUALIFYING ACTIVITY. Taxpayer must purchase manufacturing machinery or equipment used directly and primarily to produce Energy Star windows and doors for residential real property.

1. Qualifying equipment includes electricity, fuel and other utilities used to operate that machinery or equipment.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

24.14 Maryland state income tax credit for energy storage systems

A. GENERAL DESCRIPTION. Maryland provides an income tax credit in the amount of 30% of the cost of energy storage systems. *Md. Code Ann. §10-719; S.B. 758 (2017); Md. Regs. Code §14.26.07.01 et seq.; H.B. 980 (2020); S.B. 215 (2022)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to (1) the owner of a residential property who purchases and installs an energy storage system on the residential property; (2) the owner of a commercial property who purchases and installs an energy storage system on the commercial property; or (3) an individual or a corporation that owns or pays for the installation of an energy storage system that supplies electrical energy intended for use on the residential or commercial property on which the energy storage system is installed.

1. Taxpayer must be certified by the MD Energy Administration.

C. QUALIFYING ACTIVITY. Taxpayer must install energy storage systems. Energy storage system is a system used to store electrical energy, or mechanical, chemical, or thermal energy that was once electrical energy, for use as electrical energy at a later date or in a process that offsets electricity use at peak times.

1. Qualifying energy storage systems must maintain certain safety criteria.
2. Residential property is property, including a single-family home and an individual unit of a multifamily property or mixed use facility, that has the purpose of serving as a primary residence.
3. Commercial property is nonresidential property with a commercial, industrial, or government use as outlined in the qualifications for the Commercial Clean Energy Grant Program and includes multifamily properties.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the cost of the energy storage system.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$5,000 for an energy storage system installed on a residential property and \$150,000 for an energy storage system installed on a commercial property. The maximum statewide tax credit amount is \$750,000.

1. Taxpayers that have already claimed an energy storage systems income tax credit are ineligible for additional energy storage systems income tax credits for the same taxable year.
2. Addresses where energy storage systems income tax credits have already been claimed, including multifamily properties, are ineligible for additional energy storage income tax credits from this program.

F. INCENTIVE TIMEFRAME. The tax credit is available starting January 1, 2018 and expires December 31, 2024. Unused tax credit may be carried forward.

G. MISCELLANEOUS.

24.15 Maryland state excise tax credit for zero-emission electric vehicles and fuel cell electric vehicles

A. GENERAL DESCRIPTION. Maryland provides a tax credit against the motor vehicle titling excise tax for certain zero-emission electric vehicles and fuel cell electric vehicles. *MD Code, Transportation, § 13-815; Md. Regs. Code §§ 11.15.40.01 through -.04.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers who are subject to the motor vehicle titling excise tax.

C. QUALIFYING ACTIVITY. Purchase of a plug-in electric drive vehicle, fuel cell electric vehicle, 3-wheeled zero-emission electric motorcycle or auticycle, or 2-wheeled zero-emission electric motorcycle. Qualifying zero-emission plug-in electric drive vehicles are a motor vehicles that are made by a manufacturer, has a maximum speed capability of at least 55 miles per hour, and is propelled by an electric motor that draws electricity from a battery that has a capacity of not less than 4 kilowatt-hours and is capable of being recharged from an external source of electricity.

1. Qualifying vehicles must be acquired for use or lease by the Taxpayer and not for resale.
2. The base purchase price for qualifying vehicles cannot exceed \$50,000.
 - (i). Base purchase price is the standard vehicle price as printed on the Monroney sticker.
 - (ii). Base purchase price does not include: (1) shipping or freight charges; (2) after manufacture items included with the vehicle at the time of purchase; (3) extended warranties; (4) state or federal taxes; (5) registration fees; (6) calculation of a dealer trade-in allowance; (7) dealer discounts or rebates; (8) state, federal, or local government purchase incentives; or (9) vehicle options.

D. INCENTIVE AMOUNTS. The tax credit amount is: (1) \$3,000 for each zero-emission plug-in electric drive vehicle or fuel cell electric vehicle purchased; or (2) (i) \$1,000 for each two-wheeled

zero-emission electric motorcycle purchased; or
(ii) \$2,000 for each three-wheeled zero-emission electric motorcycle or autocycle purchased.

E. INCENTIVE LIMITS. The tax credit limited to one vehicle per individual and 10 vehicles per business entity.

F. INCENTIVE TIMEFRAME. The tax credit is available starting July 1, 2023 and expires June 30, 2027.

G. MISCELLANEOUS.

F. INCENTIVE TIMEFRAME. The tax exemption applies through the lifecycle of the community solar energy generating system that is placed in service after June 30, 2022 and has been approved on or before December 31, 2025, by the Public Service Commission.

G. MISCELLANEOUS.

24.16 Maryland Local tax exemption for community solar energy generating systems.

A. GENERAL DESCRIPTION. Maryland provides a tax exemption from county and municipal personal property taxes personal property of a specified community solar energy generating system. *Md. Code Ann., Tax-Prop. §7-237(c); H.B. 76 (2022); H.B. 908 (2023).*

B. ELIGIBLE TAXPAYERS. Taxpayer owners of specified community solar energy generating systems.

C. QUALIFYING ACTIVITY. Qualifying community solar energy personal property is machinery or equipment that is part of the system that: (1) has a generating capacity that does not exceed two megawatts as measured by the alternating current rating of the system's inverter; and (2) provides at least 50% of the energy it produces to low- or moderate-income customers at a cost that is at least 20% less than the amount charged by the electric company that serves the area where the system is located. Qualifying community solar energy machinery and equipment must be installed on a rooftop, parking facility canopy, or brownfield.

D. INCENTIVE AMOUNT. The tax exemption amount is 100% of personal property tax amount.

E. INCENTIVE LIMITS.

25. Massachusetts State Tax Incentives for Renewable Energy and Energy Efficiency

25.01 Massachusetts state excise tax deduction for solar or wind powered systems

A. GENERAL DESCRIPTION. Massachusetts provides an excise tax deduction in the amount of 100% of the cost of any solar or wind powered climatic control or water heating units used exclusively in a trade or business. *Mass. Gen. Laws ch. 63, §38H.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer corporations placing solar or wind powered climatic control or water heating units in service used exclusively in a trade or business.

C. QUALIFYING ACTIVITY. Taxpayer must install a solar or wind powered climatic control or water heating units.

1. Solar or wind powered climatic control unit and any solar or wind powered water heating unit includes labor expenditures.
2. Qualifying system must be used exclusively in the trade or business of the business.
3. Qualifying system manufacturer's BTU impact statement must be certified by the MA Director of Building Construction.
4. Solar or wind powered climatic control unit and any solar or wind powered water heating unit does not include any other climate control unit, any water heating unit or other unit used ancillary to any solar or wind powered unit.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the cost of the solar or wind powered climatic control or water heating units. In calculating the deduction, the net income for the taxable year and all succeeding taxable years must be computed without any exemption, credit or deduction for such expenditures or for depreciation of the property.

1. Costs include installation costs and wages for personnel to operate the unit.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS. The tax deduction may be recaptured for a period of 10 years if there is any change of use disqualifying the system.

1. The gain or loss on the sale or disposition of a qualifying system must be the gain or loss resulting as if the deduction has not been elected and the cost or other basis of the units has been reduced by straight-line depreciation based on the useful life of the qualifying system. The basis is \$0 if the sale or disposition occurs within 3 years of the date the qualifying system is placed in service.

2. A qualifying system is excluded from the tangible property measure of the excise tax.

25.02 Massachusetts state property tax exemption for renewable energy property

A. GENERAL DESCRIPTION. Massachusetts provides a property tax exemption in the amount of 100% of the tax on solar and wind energy systems or qualified fuel cell powered systems used as a primary or auxiliary power system. *Mass. Gen. Laws ch. 59 §5 (45, 45A, 45B); United Salvage Corp. of America v. Bd. of Assessors of Framingham, Mass. App. Tax Bd., Dkt. No. F329077, 05/29/2020; Pelleverde Capital, LLC v. Board of Tax Assessors of the Town of West Bridgewater, Mass. Appellate Tax Bd., Dkt. No. F328570, 05/29/2020. Massachusetts DOR, Bulletin 2021-3, May 2021; Informational Guideline Release (IGR) 21-24, 10/01/2021; Pelleverde Capital v. Bd. of Assessors of West Bridgewater, Mass. Ct. App., Dkt. No. 21-P-424, 09/21/2022.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners or lessors of solar and wind energy systems or qualified fuel cell powered systems used as a primary or auxiliary power system.

C. QUALIFYING ACTIVITY. Taxpayer must own solar and wind energy systems or qualified fuel cell powered systems used as a primary or auxiliary power system. The energy system

utilized as a primary or auxiliary power system for the purpose of heating or otherwise supplying the energy needs of taxable property.

1. The system does not produce more than 125% of the annual electricity needs of the underlying property;
2. The powered system that is co-located with energy storage is 25 kW or less; or
3. The powered or storage system has entered into a Payment In Lieu Of Taxes (PILOT) agreement with the municipality where the system is located, provided that the system produces less than 150% of the annual electricity needs of the real property.
4. Hydropower facilities are also exempt from local property tax for a 20-year period if a system owner enters into an agreement with the city or town to make a payment (in lieu of taxes) of at least 5% of its gross income in the preceding calendar year.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 20 years.

G. MISCELLANEOUS. All personal property taxes on the system and any real property taxes attributable to the system and those taxes associated with the land will be part of a PILOT Agreement.

25.03 Massachusetts state income tax deduction for energy conservation or alternative energy patents

A. GENERAL DESCRIPTION. Massachusetts provides an income tax deduction in the amount of 100% of the income received from the sale or lease of a U.S. patent beneficial for energy conservation or alternative energy development and any income received from the sale or lease of personal or real property or materials manufactured and subject to the approved patent. *Mass. Gen. Laws ch. 62, §2(a)(2)(G)*.

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer corporations or individuals with income from a qualifying patent beneficial for energy conservation or alternative energy development.

C. QUALIFYING ACTIVITY. Taxpayer must derive income from a qualifying patent. Income from a qualifying patent is any income, including royalty income, received from the sale, lease or other transfer of tangible, intangible, personal or real property or materials manufactured in the Commonwealth subject to such patent.

1. Qualifying patent must certified as beneficial for energy conservation or alternative energy development by the MA Department of Energy Resources.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the income received.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deduction period is 5 years from the sooner of the date of issuance of the U.S. patent or the date of approval by the MA Department of Energy Resources.

G. MISCELLANEOUS.

25.04 Massachusetts state income tax credit for renewable energy systems in primary residences

A. GENERAL DESCRIPTION. Massachusetts provides an income tax credit in the amount of 15% of the cost of a renewable-energy system installed on a primary residence. *Mass. Gen. Laws Ch. 62, §6(d)*. *Mass. Regs. Code 830 CMR §62.6.1(2)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners or tenants of residential property installed with renewable-energy system.

1. Taxpayer may be owners or occupants for a newly constructed home.
2. Taxpayers who are joint owners of a residential property share any tax credit

available to the property in the same proportion as their ownership interest.

C. **QUALIFYING ACTIVITY.** Taxpayer must install renewable energy source property in residential property for their principal residence. Renewable energy source property is property that when installed in connection with a dwelling, transmits or uses solar energy or any other form of specified renewable energy, for the purpose of heating or cooling the dwelling, providing hot water for use within the dwelling, or for producing electricity for such purposes, or wind energy for non-business, residential purposes. Renewable energy source property include solar water and space heating, photovoltaics (PV), and wind-energy systems.

1. Renewable energy source property does not include heating and cooling systems that supplement renewable energy source equipment in heating or cooling a dwelling, and which use a form of energy other than solar or wind.
2. Renewable energy source property must have the original use begin with Taxpayer.
3. Renewable energy source property must reasonably be expected to remain in operation for at least 5 years.
4. Principle residence is that place of the Taxpayer's residence if taxpayer has only one place of residence. If Taxpayer has more than one place of residence, the determination of which place of residence is Taxpayer's principal residence depends upon all the facts and circumstances in the case, including the number of days spent at each place of residence and the good faith representations of Taxpayer.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 15% of the cost of the renewable energy source property.

1. The cost of the renewable energy source property is the total of the purchase price for any renewable energy source property, plus installation cost less any credits received pursuant to the IRC and less grants or rebates received from the US Department of Housing and Urban Development.

E. **INCENTIVE LIMITS.** The maximum tax credit amount is \$1,000.

F. **INCENTIVE TIMEFRAME**

G. **MISCELLANEOUS**

25.05 Massachusetts state sales tax exemption for renewable energy equipment in primary residences

A. **GENERAL DESCRIPTION.** Massachusetts provides a sales tax exemption in the amount of 100% of the tax on equipment directly relating to any solar, wind powered or heat pump system, which is being utilized as a primary or auxiliary power system of a principal residence. *Mass. Gen. Laws 64H §6(dd); Massachusetts DOR Directive 86-2, 06/12/1986; Massachusetts Letter Ruling 83-91, 10/31/1983; Massachusetts Letter Ruling 84-88, 09/25/1984 . Massachusetts DOR Directive 86-2, 06/12/1986.*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers or lessees of equipment directly relating to any solar, wind powered or heat pump system, which is being utilized as a primary or auxiliary power system of a principal residence.

1. Taxpayer must complete and present Massachusetts Tax Form ST-12 to seller.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase or lease equipment directly related to a solar, wind or heat pump system used as a primary or auxiliary power system for heating or otherwise supplying energy needs.

1. Qualifying equipment includes the fans and ductwork as components of solar heating systems to taxpayers for use in their principal residences.
2. Qualifying equipment does not include passive air-to-air heat exchanger.
3. Qualifying equipment does not include equipment that serves as a structural component of a dwelling, such as glass for a solar sunspace.
4. Qualifying equipment does not include equipment if purchased for a principal

residence outside the state, or if the equipment is for a commercial building or a vacation home.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

25.06 Massachusetts state sales tax exemption for wind turbine equipment in furnishing electricity

A. GENERAL DESCRIPTION. Massachusetts provides a sales tax exemption in the amount of 100% of the tax on wind turbine equipment used directly and exclusively in furnishing electricity to consumers through mains, lines, or pipes. *Mass. Gen. Laws 64H §6(s); Massachusetts Letter Ruling 10-03, 07/07/2010; Massachusetts Letter Ruling 12-7, 07/02/2012.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of wind turbine equipment.

1. Taxpayer must complete and present Massachusetts Tax Form ST-12 to seller.

C. QUALIFYING ACTIVITY. Taxpayer must purchase wind turbine equipment used directly and exclusively in furnishing electricity to consumers through mains, lines, or pipes.

1. Qualifying equipment includes the tower, the turbine, component parts, adjuncts or attachments necessary for the turbine to furnish the electricity to consumers through electrical lines, or to the extent that they are used or required to control, regulate or operate the turbine

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

25.07 Massachusetts state sales tax exemption for cellulosic biofuel

A. GENERAL DESCRIPTION. Massachusetts provides a sales tax exemption in the amount up to \$0.21 per gallon of cellulosic biofuel. *Mass. Gen. Laws 64A §§1 and 1A.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of cellulosic biofuel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase cellulosic biofuel. Qualifying cellulosic biofuel is cellulosic biofuel that yields at least a 60% reduction in lifecycle greenhouse gas emissions relative to average lifecycle greenhouse gas emissions for petroleum based fuel sold in 2005.

1. Qualifying cellulosic biofuel must be certified by the MA Department of Energy Resources and the Department of Environmental Protection.

D. INCENTIVE AMOUNTS. The tax exemption amount is up to \$0.21 per gallon of cellulosic biofuel. A proportional tax exemption amount is available for fuel containing a percentage of cellulosic biofuel.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2017.

G. MISCELLANEOUS.

25.08 Massachusetts state income tax credit for offshore wind

A. GENERAL DESCRIPTION. Massachusetts provides an income tax credit in the amount up to 50% of the investment in an offshore wind facility. *Mass. Gen. Laws 62 §6(aa)-(bb) and seq., 63 §§38KK and 38LL, and seq., 23J §1 and seq.; H.B. 5060 (2022).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer offshore wind company. An offshore wind company is a business corporation, partnership, firm, unincorporated association or other entity engaged in offshore wind development, manufacturing or commercialization in the commonwealth and any affiliate thereof, which is, or the members of which are, subject to taxation under chapter 62, 63, 64H or 64I.

1. Taxpayer must be certified by the Massachusetts Clean Energy Technology Center for participation in the Massachusetts offshore wind industry investment program.
2. Taxpayer must be granted the tax credit by the Secretary of Administration and Finance.

C. QUALIFYING ACTIVITY. Taxpayer own or be a tenant of an offshore wind facility. An offshore wind facility is any building, complex of buildings, or structural components of buildings, including water access infrastructure, and all machinery and equipment used in the manufacturing, assembly, development or administration of component parts that are primarily used to support the offshore wind industry.

1. Taxpayer must make a capital investment of at least \$35 million.
2. Taxpayer must commit to the creation of a minimum of 50 net new permanent full-time employees.
3. The offshore wind facility must employ at least 200 new full-time employees by the fifth year of the owner's certification period.
4. A Taxpayer Tenant must occupy a leased area of the offshore wind facility that represents not less than 25% of the owner's capital investment in the facility

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the investment in an offshore wind facility.

E. INCENTIVE LIMITS. The statewide annual maximum tax credit amount is \$35 million. The tax credit is refundable up to 90%. The tax credit may not be carried forward.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

26. Michigan State Tax Incentives for Renewable Energy and Energy Efficiency

26.01 Michigan state tax abatements for renewable energy renaissance zones

A. GENERAL DESCRIPTION. Michigan provides a tax abatement in the amount of 100% of the business tax, state education tax, personal and real property taxes, and local income taxes for renewable facilities located in renewable energy renaissance zones. *Mich. Comp. Laws §125.2681 et seq.; H.B. 5555 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax abatements are available to Taxpayer owners of renewable energy facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own a renewable facility located in renewable energy renaissance zones. A renewable facility is a facility that creates energy directly or fuel from the wind, the sun, or wide variety of biomass-based materials or a facility that focuses on research, development, or manufacturing of systems or components of systems used to create energy, green biodiesel, or advanced battery technology or fuel from renewable sources.

1. Renaissance zone designations are approved by the MI State Administrative Board based upon recommendations from the MI Strategic Fund.

D. INCENTIVE AMOUNTS. The tax abatement amount is 100% of the business tax, state education tax, property tax, or local income tax due.

E. INCENTIVE LIMITS. The maximum cumulative tax abatement amount is \$10 million.

F. INCENTIVE TIMEFRAME. The maximum tax abatement period is 15 years.

1. Tax abatement phases out in 25% increments over the last 3 years of the zone designation.

G. MISCELLANEOUS.

26.02 Michigan state property tax exemption for biomass gasification and methane digester property

A. GENERAL DESCRIPTION. Michigan provides a property tax exemption in the amount of 100% the tax on biomass gasification and methane digester property. *Mich. Comp. Laws §211.9(j)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of energy production related farm facility property.

1. Taxpayer must be certified by the MI Agriculture Environmental Assurance Program.

2. Taxpayer must allow access for 2 universities to collect information regarding the effectiveness of the methane digester and the methane digester electric generating system in generating electricity and processing animal waste and production area waste.

C. QUALIFYING ACTIVITY. Taxpayer must own energy production related farm facility property. Energy production related farm facility property include certain methane digesters, biomass gasification equipment, equipment used to harvest crop residues or dedicated crops used for energy production, equipment used to generate electricity from methane digester systems and equipment used to generate heat or electricity from biomass gasifiers.

1. Energy production related farm facility property must be certified by the MI Department of Agriculture.

2. Biomass gasification system is apparatus and equipment that thermally decomposes agricultural, food, or animal waste at high temperatures and in an oxygen-free or a controlled oxygen-restricted environment into a gaseous fuel and the equipment used to generate electricity or heat from the gaseous fuel or store the gaseous fuel for future generation of electricity or heat.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

26.03 Michigan state sales tax exemption for biofuel

A. GENERAL DESCRIPTION. Michigan provides a sales tax exemption in the reduced amount of \$0.12 per gallon of biofuel. *Mich. Comp. Laws §207.1008.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of biofuel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase biofuel. Qualifying biofuel is fuel that contains at least 5% biodiesel. Biodiesel is a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats and, in accordance with standards specified by the American society for testing and materials, designated B100 and meeting the requirements of D-6751.

1. Qualifying biodiesel must be certified by the MI Department of Agriculture.

D. INCENTIVE AMOUNTS. The tax exemption amount is a reduction to \$0.12 per gallon of biofuel.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

26.04 Michigan state property tax exemption for alternative energy personal property

A. GENERAL DESCRIPTION. Michigan provides a property tax exemption in the amount of 100% the tax on alternative energy personal property. *Mich. Comp. Laws §211.9(j); H.B. 4465 (2019).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of alternative energy personal property.

C. QUALIFYING ACTIVITY. Taxpayer must own energy production related alternative energy personal property. Alternative energy personal property are (i) alternative energy systems; (ii) alternative energy vehicles; (iii) all personal property of an alternative energy technology business; (iv) the personal property of a business that is not an alternative energy technology business that is used solely for the purpose of researching, developing, or manufacturing an alternative energy technology.

1. Alternative energy systems are the small-scale generation or release of energy from 1 or any combination of the following types of energy systems: fuel cell, photovoltaic, solar-thermal, wind, CHP, microturbine, miniturbine, Stirling cycle, battery cell, clean fuel, electricity storage, biomass, and thermoelectric energy systems.

2. Alternative energy vehicles are motor vehicles manufactured by an original equipment manufacturer that fully warrants and certifies that the motor vehicle meets federal motor vehicle safety standards for its class of vehicles and certifies that the motor vehicle meets local emissions standards, that is propelled by an alternative energy system.

3. Alternative energy technology businesses are businesses engaged solely in the research, development, or manufacturing of alternative energy technology.

4. Alternative energy technology is equipment, component parts, materials, electronic devices, testing equipment, and related systems that are specifically designed, specifically fabricated, and used primarily for 1 or more of the following: (i) the storage, generation, reformation, or distribution of clean fuels integrated within an alternative energy system or alternative energy vehicle, not including an anaerobic digester energy system or a hydroelectric energy system, for use within the alternative energy system or alternative energy vehicle; (ii) the process of generating and putting into a usable form the energy generated by an alternative energy system. Alternative energy technology does

not include those component parts of an alternative energy system that are required regardless of the energy source; (iii) a microgrid; (iv); research and development of an alternative energy vehicle; (v) research, development, and manufacturing of an alternative energy system; (vi) research, development, and manufacturing of an anaerobic digester energy system; and (vii) research, development, and manufacturing of a hydroelectric energy system.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

26.05 Michigan state property tax exemption for alternative energy systems on residential property

A. GENERAL DESCRIPTION. Michigan provides a property tax exemption in the amount of 100% the tax on alternative energy systems. *Mich. Comp. Laws §211.27(p); S.B. 47 (2019); Mich. Comp. Laws §211.34(d); H.B. 4069(2019).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of alternative energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own energy production related alternative energy systems on residential property with a generating capacity of not more than 150 kilowatts. Alternative energy systems are (i) alternative energy systems; (ii) alternative energy vehicles; (iii) all systems of an alternative energy technology business; (iv) the systems of a business that is not an alternative energy technology business that is used solely for the purpose of researching, developing, or manufacturing an alternative energy technology.

1. Alternative energy systems are the small-scale generation or release of energy from 1 or any combination of the following types of

energy systems: fuel cell, photovoltaic, solar-thermal, wind, CHP, microturbine, miniturbine, Stirling cycle, battery cell, clean fuel, electricity storage, biomass, and thermoelectric energy systems.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

26.06 Michigan state property tax exemption for solar energy systems

A. GENERAL DESCRIPTION. Michigan provides a property tax exemption in the amount of 100% the tax on solar energy systems. *Mich. Comp. Laws §211.9(f); H.B. 4317 (2023); H.B. 4318 (2023); H.B. 2318 (2023).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own solar energy systems. Solar energy facility is a facility, whether owned or leased, that when constructed and placed in service is located in a solar energy district and that uses or will use solar energy as the sole source for the generation of at least two megawatts of nameplate capacity, alternating current, including any solar modules, inverter, racks, tracking, on-site battery storage systems if identified in the application, controls, electric interface, and all components that are positioned up to, and including, the inversion of the current delivered from the facility.

1. The solar energy system must be certified.

2. Solar energy facility include all land improvements, except buildings, exclusively used for the generation of solar energy at the facility, including access roads, security fences, and communication facilities.

3. Solar energy facility does not include any distribution or transmission lines.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME The tax exemption is available after December 21, 2023.

G. MISCELLANEOUS

27. Minnesota State Tax Incentives for Renewable Energy and Energy Efficiency

27.01 Minnesota state property tax exemption for solar electric and wind systems

A. GENERAL DESCRIPTION. Minnesota provides a property tax exemption in the amount of 100% the tax on solar-electric and wind systems. *Minn. Stat. §272.02; Minn. Stat. §272.028 et seq.; H.F. 1298 (2009).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar-electric and wind system property.

C. QUALIFYING ACTIVITY. Taxpayer must own solar-electric and wind system property.

1. Solar-electric and wind system property does not include land on which a PV or wind system is located.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

27.02 Minnesota state sales tax exemption for solar energy systems

A. GENERAL DESCRIPTION. Minnesota provides a sales tax exemption in the amount of 100% of the tax on solar-energy systems. *Minn. Stat. §297A.67, Subd. 29.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of solar-energy system property.

C. QUALIFYING ACTIVITY. Taxpayer must purchase solar-energy system property. Solar-energy system property includes solar electric (PV) systems, solar water-heating systems and

solar space-heating systems, including panels, wiring, pipes, pumps and racks. Solar energy system is a set of devices whose primary purpose is to collect solar energy and convert and store it for useful purposes including heating and cooling buildings or other energy-using processes, or to produce generated power by means of any combination of collecting, transferring, or converting solar-generated energy.

1. Taxpayer must present Form ST3, Certificate of Exemption to seller.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

27.03 Minnesota state sales tax exemption for wind energy conversion systems

A. GENERAL DESCRIPTION. Minnesota provides a sales tax exemption in the amount of 100% of the tax on wind-energy conversion systems. *Minn. Stat. §297A.68 subd. 12.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of wind-energy conversion system property

C. QUALIFYING ACTIVITY. Taxpayer must purchase wind-energy conversion system property. Wind-energy conversion system property is property used as electric-power sources and materials used to manufacture, install, construct, repair or replace wind-energy systems. Wind energy conversion system is any device, such as a wind charger, wind mill or wind turbine, that converts wind energy to a form of usable energy.

1. Taxpayer must present Form ST3, Certificate of Exemption to seller.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

27.04 Minnesota state property tax financing option for renewable energy and energy-efficiency systems

A. GENERAL DESCRIPTION. Minnesota provides a property tax financing option for municipalities for renewable energy and energy-efficiency systems. *Minn. Stat. §216B.241; H.B. 2695 (2010).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer financing renewable energy or eligible energy-efficiency improvements.

1. The local jurisdiction must review an energy audit or renewable energy system feasibility study.

C. QUALIFYING ACTIVITY. Taxpayer must finance renewable energy or eligible energy-efficiency improvements. Renewable energy is energy produced by means of solar thermal, solar photovoltaic, wind, or geothermal resources.

1. Qualifying energy improvements are: (1) any renovation or retrofitting of a building to improve energy efficiency that is permanently affixed to the property and that results in a net reduction in energy consumption without altering the principal source of energy; (2) permanent installation of new or upgraded electrical circuits and related equipment to enable electrical vehicle charging; or (3) a renewable energy system attached to, installed within, or proximate to a building that generates electrical or thermal energy from a renewable energy source.
2. Qualifying energy improvements must be performed by licensed contractors as required by ch 326B or other law or ordinance.
3. Qualifying energy improvements do not include improvements generating energy sold, transmitted or distributed at retail, or providing for the end use of the electrical energy from an off-site facility.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction. The maximum financing amount is the lesser of: (i) 10% of the assessed value of the real property on which the improvements are to be installed; or (ii) the actual costs of installing the energy improvements.

1. Qualifying energy improvement costs include costs of necessary equipment, materials, and labor, the costs of each related energy audit or renewable energy system feasibility study, and the costs of verification of installation.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax financing term varies by local jurisdiction. The maximum financing term is 20 years.

G. MISCELLANEOUS.

27.05 Minnesota state sales tax exemption for green facilities

A. GENERAL DESCRIPTION. Minnesota provides a sales tax exemption in the amount of 100% of the tax on green facilities property. *Minn. Stat. §297A.71(8), (34), and (35).*

B. ELIGIBLE TAXPAYERS. Taxpayer purchasers of property to construction green facilities property.

C. QUALIFYING ACTIVITY. Taxpayer must purchase green facilities property. Green facilities property include wood waste cogeneration facilities. A wood waste cogeneration facility is a district heating and cooling system cogeneration facility that utilizes wood waste as a primary fuel source and satisfies the requirements of the MN biomass mandate.

1. Taxpayer must present Form ST3, Certificate of Exemption to seller.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

28. Mississippi State Tax Incentives for Renewable Energy and Energy Efficiency

28.01 Mississippi state business income tax credit for alternative energy job creation

A. GENERAL DESCRIPTION. Mississippi provides a business income tax credit over 20 years in the amount of \$1,000 annually for each net new full-time employee job in manufacturing or production facilities of alternative energy through an alternative fuels project. *Miss. Code Ann. §27-7-22.29.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer businesses employing new full-time employees in manufacturing or production facilities of alternative energy.

C. QUALIFYING ACTIVITY. Taxpayer must employ new full-time employees in manufacturing or production facilities of alternative energy.

1. Qualifying facility must create 25 or more new full-time employee jobs.

D. INCENTIVE AMOUNTS. The tax credit amount is \$1,000 per year for each net new full-time employee job.

1. In the first year, the number of new full-time jobs is determined by using the monthly average number of full-time employees subject to Mississippi income tax withholding. For subsequent years, the determination is made by comparing the monthly average number of full-time employees subject to Mississippi income tax withholding with the corresponding period of the prior taxable year.

E. INCENTIVE LIMITS. The maximum tax credit allowed to be claimed is 100% of the state income tax liability that is generated by the qualifying facility.

F. INCENTIVE TIMEFRAME. The tax credit is taken over 20 years. Taxpayer may choose the

beginning date for the period not more than 5 years from the date manufacturing or production of alternative energy begins. Unused tax credit may be carried forward 5 years. Unused tax credit on qualifying facilities in disaster areas may be carried forward 7 years.

G. MISCELLANEOUS. Taxpayer may not use the tax credit offered in the Economic Development Reform Act, *Miss. Code Ann. §57-73-21.*

28.02 Mississippi state sales and use tax exemption for solar panel manufacturers

A. GENERAL DESCRIPTION. Mississippi provides a sales and use tax exemption in the amount of 100% of the tax on solar panel manufacturers. *Miss. Code Ann. §57-75-5; S.B. 3189 (2010).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer manufacturers of solar panels.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture solar panels.

1. Taxpayer must have received an investment of at least \$132 million by December 31, 2015, from sources other than Mississippi state or local governments.
2. Taxpayer must create at least 500 new full-time jobs within 5 years after the start of commercial production. Taxpayer must maintain those jobs for at least 10 years with an average annual compensation of at least \$34,000 per year, excluding any benefits not subject to Mississippi income tax.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

28.03 Mississippi state franchise tax exemption for solar panel manufacturers

A. GENERAL DESCRIPTION. Mississippi provides a franchise tax exemption in the amount of 100% of the tax on solar panel manufacturers. *Miss. Code Ann. §57-75-5; S.B. 3189 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer manufacturers of solar panels.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture solar panels.

1. Taxpayer must have received an investment of at least \$132 million by December 31, 2015, from sources other than Mississippi state or local governments.

2. Taxpayer must create at least 500 new full-time jobs within 5 years after the start of commercial production. Taxpayer must maintain those jobs for at least 10 years with an average annual compensation of at least \$34,000 per year, excluding any benefits not subject to Mississippi income tax.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

28.04 Mississippi state income tax exemption for clean energy manufacturing facilities

A. GENERAL DESCRIPTION. Mississippi provides an income tax exemption in the amount of 100% of the tax on clean energy manufacturing facilities. *Miss. Code Ann. §57-113-1 et seq.; H.B. 1071 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of clean energy manufacturing facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own clean energy manufacturing facilities. Clean energy is energy that is generated from either a renewable energy source, such as wind, water,

biomass or solar power; or an alternative energy source, such as nuclear power.

1. Taxpayer must make a minimum capital investment of \$50 million in a facility that manufactures or assembles systems or components used in the generation of clean energy.

2. Taxpayer must create at least 250 new, full-time jobs.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due related to the facility.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

28.05 Mississippi state franchise tax exemption for clean energy manufacturing facilities

A. GENERAL DESCRIPTION. Mississippi provides an income tax exemption in the amount of 100% of the tax on clean energy manufacturing facilities. *Miss. Code Ann. §57-113-1 et seq.; H.B. 1701 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of clean energy manufacturing facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own clean energy manufacturing facilities. Clean energy is energy that is generated from either a renewable energy source, such as wind, water, biomass or solar power; or an alternative energy source, such as nuclear power.

1. Taxpayer must make a minimum capital investment of \$50 million in a facility that manufactures or assembles systems or components used in the generation of clean energy.

2. Taxpayer must create at least 250 new, full-time jobs.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due related to the facility.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

28.06 Mississippi state sales and use tax exemption for clean energy manufacturing facilities

A. GENERAL DESCRIPTION. Mississippi provides a sales and use tax exemption in the amount of 100% of the sales and use tax on the construction or expansion of clean energy manufacturing facilities. *Miss. Code Ann. §57-113-1 et seq.; H.B. 1701 (2010).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of clean energy manufacturing facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own clean energy manufacturing facilities. Clean energy is energy that is generated from either a renewable energy source, such as wind, water, biomass or solar power; or an alternative energy source, such as nuclear power.

1. Taxpayer must make a minimum capital investment of \$50 million in a facility that manufactures or assembles systems or components used in the generation of clean energy.

2. Taxpayer must create at least 250 new, full-time jobs.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due related to the purchase or lease of component building materials, equipment, and machinery for the initial construction or expansion of the facility.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

28.07 Mississippi state corporate income tax credit for biomass fuel production facilities

A. GENERAL DESCRIPTION. Mississippi provides an income tax credit in the amount of 5% of investments made in biomass fuel production facilities. *Miss. Code Ann. §27-7-22.35.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer investing in biomass fuel production facilities.

C. QUALIFYING ACTIVITY. Taxpayer must invest in biomass fuel production facilities. A biomass fuel production facility is a facility that consists of all components necessary for the production of electric energy from the direct firing or co-firing of biomass or waste heat recovery, and other energy sources; produces both electric energy and useful thermal energy, such as heat or steam, through the sequential use of energy (cogeneration); and consists of all components necessary for the production of synfuel.

1. Taxpayer must make a minimum capital investment of \$50 million in a facility.

2. Taxpayer must create at least 20 new, full-time jobs.

3. An eligible facility includes all burners and boilers, any handling and delivery equipment that supplies fuel directly to, and is integrated with, such burners and boilers, steam headers, turbines, generators, property used for the collection, processing, or storage of biomass or synfuel, transformers, pipelines and all other property used in the transmission of electricity or synfuel and related depreciable property.

4. Biomass includes any of the following: forest-related mill residues, pulping by-product and other by-products of wood processing, thinnings, slash, limbs, bark, brush, and other cellulosic plant material or nonmerchantable forest-related products; solid wood waste materials, including dunnage, manufacturing, and construction wood wastes, demolition and storm debris and landscape or right-of-way trimmings;

agriculture wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues and livestock waste nutrients; all plant and grass material that is grown exclusively as a fuel for the production of electricity; refuse derived fuels consisting of organic components and fibers of waste water treatment solids; or whole trees.

D. INCENTIVE AMOUNTS. The tax credit amount is 5% of the amount invested.

E. INCENTIVE LIMITS. The maximum tax credit allowed to be claimed is 50% of the state income tax liability of Taxpayer.

F. INCENTIVE TIMEFRAME. Taxpayer may choose the beginning date for the period not more than 2 years from the facility becomes fully operational. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

28.08 Mississippi state sales and use tax exemption for biomass fuel production facilities

A. GENERAL DESCRIPTION. Mississippi provides a sales and use tax exemption in the amount of 100% of tax due on the materials used in the construction, improvement, or enlargement of a biomass fuel production facility. *Miss. Code Ann. §27-7-22.35; H.B. 8b (2010)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasing materials used in the construction, improvement, or enlargement of a biomass fuel production facility.

C. QUALIFYING ACTIVITY. Taxpayer must purchase materials used in the construction, improvement, or enlargement of a biomass fuel production facility. A biomass fuel production facility is a facility that produces of renewable crude oil and consists of all components necessary for the production of electric energy from the direct firing or co-firing of biomass or waste heat recovery, and other energy sources; produces both electric energy and useful thermal energy, such as heat or steam, through the

sequential use of energy (cogeneration); and consists of all components necessary for the production of synfuel.

1. Taxpayer must make a minimum capital investment of \$50 million in a facility.

2. Taxpayer must create at least 20 new, full-time jobs.

3. An eligible facility includes all burners and boilers, any handling and delivery equipment that supplies fuel directly to, and is integrated with, such burners and boilers, steam headers, turbines, generators, property used for the collection, processing, or storage of biomass or synfuel, transformers, pipelines and all other property used in the transmission of electricity or synfuel and related depreciable property.

4. Biomass includes any of the following: forest-related mill residues, pulping by-product and other by-products of wood processing, thinnings, slash, limbs, bark, brush, and other cellulosic plant material or nonmerchantable forest-related products; solid wood waste materials, including dunnage, manufacturing, and construction wood wastes, demolition and storm debris and landscape or right-of-way trimmings; agriculture wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues and livestock waste nutrients; all plant and grass material that is grown exclusively as a fuel for the production of electricity; refuse derived fuels consisting of organic components and fibers of waste water treatment solids; or whole trees.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

28.09 Mississippi state property tax exemption for renewable energy projects

A. GENERAL DESCRIPTION. Mississippi provides an ad valorem property tax exemption in the amount of up to 50% of the total assessed value of a renewable energy project. *Miss. Code Ann. §27-31-46; S.B. 2895 (2021); S.B. 2698 (2023).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy projects.

1. The tax exemption must be approved the county board of supervisors or municipal governing authorities.

C. QUALIFYING ACTIVITY. Taxpayer must own a renewable energy project. A renewable energy project is a facility generating energy through the use of a renewable energy source such as wind, water, biomass or solar.

1. The renewable energy project must have a capital investment from private sources of not less than \$100 million.

D. INCENTIVE AMOUNTS. The ad valorem tax exemption amount is up to 50% of the total assessed value of the renewable energy project.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME. The ad valorem tax exemption expires December 31, 2027. The ad valorem tax exemption must be authorized by a county board of supervisors or municipal governing authorities before July 1, 2026.

G. MISCELLANEOUS

29. Missouri State Tax Incentives for Renewable Energy and Energy Efficiency

29.01 Missouri state income tax credit for technology business projects

A. GENERAL DESCRIPTION. Missouri provides an income tax credit over 5 years in the amount of 5% of new payroll for technology business projects, including a company that owns or leases a facility that produces electricity derived from qualifying renewable energy sources or produces fuel for the generation of electricity from qualifying renewable energy sources. *Mo. Rev. Stat. §620.1875 et seq.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer business owners or lessee of qualifying facilities.

1. Taxpayer must be certified with the MO Department of Economic Development.
2. Taxpayer must create a minimum of 10 new jobs involved in the operations of the company.
3. Taxpayer may not have received the federal alcohol mixture credit or alcohol credit or small ethanol producer credit.
4. Taxpayer may transfer, sell, or assign, by filing a notarized endorsement with the MO Department of Economic Development that names the transferee, the amount of tax credit transferred, and the value received for the tax credit.
5. Taxpayer flow-through entities may allocate the tax credit to members, partners, or shareholders in proportion to their share of ownership on the last day of the Taxpayer's tax period.

C. QUALIFYING ACTIVITY. Taxpayer must own or lease an employing facility that produces electricity derived from qualifying renewable energy sources, produces fuel for the generation of electricity from qualifying renewable energy sources. Qualifying renewable energy sources include open-looped biomass, closed-looped biomass, solar, wind, geothermal, and hydropower.

1. Qualifying renewable energy sources does not include ethanol distillation or production or biodiesel production.

D. INCENTIVE AMOUNTS. The tax credit amount is 5% of new payroll for a period of five years. An additional 0.5% of new payroll may be added if the average wage of the new payroll in any year exceeds 120% of the county average wage. An additional 0.5% of new payroll may be added if the average wage of the new payroll in any year exceeds 140% of the average wage in the county.

E. INCENTIVE LIMITS. The statewide maximum annual tax credit amount is \$80 million. The tax credit is refundable.

F. INCENTIVE TIMEFRAME. The tax credit is taken over 5 years.

G. MISCELLANEOUS.

29.02 Missouri state income tax credit for alternative fuel vehicle refueling property

A. GENERAL DESCRIPTION. Missouri provides income tax credit in the amount of 20% of the costs of alternative fuel storage and dispensing equipment on any qualifying alternative fuel or electric vehicle refueling property. *Mo. Rev. Stat. §135.710.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers and installers of alternative fuel storage and dispensing equipment.

1. Taxpayer may assign, transfer or sell the tax credit to third parties.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install alternative fuel storage and dispensing equipment on any qualifying alternative fuel or electric vehicle refueling property. Qualifying alternative fuel vehicle refueling property is property that is used for storing alternative fuels and for dispensing the alternative fuels into fuel tanks of motor vehicles, with at least 51% of the costs being paid to qualifying Missouri contractors, if qualifying

contractors are located within 75 miles of the property. Alternative fuels is any motor fuel at least 70% of the volume of which consists of one or more of the following: ethanol, natural gas, compressed natural gas, liquefied natural gas, any mixture of biodiesel and diesel fuel, or hydrogen. Qualifying electric vehicle recharging property is property used for recharging electric motor vehicles.

1. The costs paid to qualifying Missouri contractors must be for fabrication of premanufactured equipment or process piping used in the construction of such facility, construction of such facility, and general maintenance of such facility during the time period when such facility receives any tax credit.

D. INCENTIVE AMOUNTS. The tax credit amount is 20% of the costs of the purchase and installation of any alternative fuel storage and dispensing equipment on any qualifying alternative fuel vehicle refueling property.

1. Qualifying costs paid to qualifying Missouri contractors must be for fabrication of premanufactured equipment or process piping used in the construction of such facility, construction of such facility, and general maintenance of such facility during the time period when such facility receives any tax credit.

2. Qualifying costs do not include costs associated with the purchase of land, the purchase of an existing qualifying alternative fuel vehicle refueling property, or the construction or purchase of any structure.

E. INCENTIVE LIMITS. The maximum tax credit allowed to be claimed is \$20,000 for business entities and \$1,500 for private citizens. The statewide maximum annual tax credit amount is \$1 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 2 years. The tax credit is not refundable.

G. MISCELLANEOUS. The tax credit may be terminated if the qualifying alternative fuel vehicle

refueling property ceases to sell alternative fuel. The tax credit may not be recaptured with respect to the Taxpayer's taxable years which ended before the sale of alternative fuel ceased.

29.03 Missouri state sales tax exemption for energy-efficient appliances

A. GENERAL DESCRIPTION. Missouri provides a sales tax exemption in the amount of 100% the tax on energy-efficient appliances. *Mo. Rev. Stat. §144.526. Show-Me Green Holiday Rates, Missouri Department of Revenue, April 14, 2022; News Release, Mo. Dept. of Rev., 04/13/2023.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of Energy Star certified new appliances.

C. QUALIFYING ACTIVITY. Taxpayer must purchase Energy Star certified new appliances up to \$1,500 per appliance. Qualifying appliances include clothes washers, clothes dryers, water heaters, trash compactors, dishwashers, conventional ovens, ranges, and stoves, air conditioners, heat pumps, furnaces, refrigerators, freezers.

1. Qualifying retailers do not include retailers with less than 2% of their merchandise qualifying for the tax holiday, in which case the retailer must offer customers a sales tax refund.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is April 19 - April 25 each year.

G. MISCELLANEOUS.

29.04 Missouri state personal income tax deduction for residential energy efficiency improvements

A. GENERAL DESCRIPTION. Missouri provides an income tax deduction in the amount of 100% of the cost of residential energy efficiency

improvements. *Mo. Rev. Stat. §143.121(8); Missouri Tax Bulletin 1.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individuals installing residential energy efficiency improvements.

C. QUALIFYING ACTIVITY. Taxpayer must install residential energy efficiency improvements. Residential energy efficiency improvement are home energy audits and energy efficiency improvements based on recommendations made in such an audit.

1. Home energy audits must be performed by a home energy auditor certified by the MO Department of Natural Resources.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the cost of residential energy efficiency improvements.

E. INCENTIVE LIMITS. The maximum annual tax deduction amount is \$1,000 per individual taxpayer return and \$2,000 per joint taxpayer return.

F. INCENTIVE TIMEFRAME. The tax deduction expires December 31, 2020.

G. MISCELLANEOUS.

29.05 Missouri state income tax credit for wood fuel production

A. GENERAL DESCRIPTION. Missouri provides an income tax credit in the amount of \$5 per ton of wood fuel production. *Mo. Rev. Stat. §135.300 et seq.; 10 CSR 140-4.010; 4 CSR 340-4.010; S.B. 729 (2014); H.B. 2007 (2016).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations or individuals processing forestry industry residues into fuels.

1. Taxpayer may transfer the tax credit to third parties. Taxpayer transferees must file a certification of assignment and other appropriate forms with the MO Department of Revenue.

C. QUALIFYING ACTIVITY. Taxpayer must process Missouri forestry industry residues into fuels.

1. Missouri forestry industry residue is any residue that results from normal timber harvest or production to include slash, sawdust, shavings, edgings, slabs, leaves, bark, and timber thinnings from timber stand improvements.
2. Missouri forestry industry residues must have undergone some thermal, chemical or mechanical process sufficient to alter the residues into a fuel product.
3. Qualifying wood fuel production must be certified by the Missouri Department of Economic Development.

D. INCENTIVE AMOUNTS. The tax credit amount is \$5 per ton of processed forestry industry residue.

E. INCENTIVE LIMITS. The maximum statewide annual tax credit amount is \$2.5 million.

F. INCENTIVE TIMEFRAME. The tax credit expires June 30, 2020. Unused tax credit may be carried over 4 years.

G. MISCELLANEOUS.

29.06 Missouri state sales tax exemption for wind and solar manufacturing equipment

A. GENERAL DESCRIPTION. Missouri provides a sales tax exemption in the amount of 100% the tax on wind and solar manufacturing equipment. *Mo. Rev. Stat. §144.030(2), §144.526; LR5913; LR7780; LR 8180; LR8258.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of on wind and solar manufacturing equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase qualifying equipment used or consumed in the manufacturing of electricity sold for final use and consumption.

1. Qualifying equipment does not include: (i) machinery and equipment used in transmission and distribution of electricity

from the facility, including equipment for stepping up or stepping down voltage; (ii) road and other real property improvements to facilitate delivery and installation of machinery and equipment for the facility.

2. Qualifying equipment does include concrete, rebar, anchor bolts, and electrical conduit required for the installation and construction of the turbine and the turbine foundation.

3. Qualifying equipment does not include site fencing, gravel access and service roads.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS

29.07 Missouri state income tax credit for renewable energy generation zone

A. GENERAL DESCRIPTION. Missouri provides an income tax credit in the amount of 2% of investment and up to \$1,200 for each new job created. *Mo. Rev. Stat. §135.200 et seq.; H.B. 737 (2011).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer employers in renewable energy generation zone new or expanded facilities.

1. Taxpayer must be certified by the MO Department of Economic Development.

C. QUALIFYING ACTIVITY. Taxpayer must own new or expanded business facilities that hire at least two new employees and make new investments in a renewable energy generation zone of at least \$100,000. Qualifying renewable energy generation zone is any area that produces or generates electrical energy from a renewable energy resource that is underutilized or unutilized for the production of electrical energy from a renewable energy resource. Renewable energy resource includes: (a) Wind; (b) Solar thermal sources or photovoltaic cells and panels; (c) Dedicated crops grown for energy production; (d)

Cellulosic agricultural residues; (e) Plant residues; (f) Methane from landfills, agricultural operations, or wastewater treatment; (g) Thermal depolymerization or pyrolysis for converting waste material to energy; (h) Clean and untreated wood such as pallets; (i) Hydroelectric power, which shall include electrical energy produced or generated by hydroelectric power generating equipment; (j) Fuel cells using hydrogen produced by one or more of the renewable resources provided in paragraphs (a) to (i) of this subdivision; or (k) Any other sources of energy, not including nuclear energy, that are certified as renewable by rule by the MO Department of Natural Resources;

D. INCENTIVE AMOUNTS. The tax credit amount varies and is determined by MO Department of Economic Development.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is the sum of: (i) 2% of the new business investment and (ii) up to \$1200 per new qualified employee employed and residing within an enhanced enterprise zone. The statewide maximum annual tax credit amount is \$24 million.

F. INCENTIVE TIMEFRAME. The tax credit period is 10 years. The tax credit may not be carried forward, but may be claimed during the tax credit period.

G. MISCELLANEOUS.

29.08 Missouri state property tax exemption for solar energy systems

A. GENERAL DESCRIPTION. Missouri provides a property tax exemption in the amount of 100% of the tax on solar energy systems. *Mo. Rev. Stat. §137.100(10); Springfield Solar 1, LLC v. Kessinger, Mo. State Tax Comm., Dkt. No. 17-33023, 02/01/2019; MCP-Chillicothe, LLC v. Ripley, Mo. State Tax Comm., Dkt. No. 18-67000, 04/18/2019. Johnson v. Springfield Solar 1, LLC, Mo. S.Ct., Dkt. No. SC99441, 08/09/2022.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own solar energy systems not held for resale.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS. The Missouri Supreme Court held that Mo. Rev. Stat. §137.100(10) is unconstitutional.

29.09 Missouri state property tax exemption for renewable energy zone property

A. GENERAL DESCRIPTION. Missouri provides a property tax exemption in various amounts on real property improvements and tangible personal property located in renewable energy zones and used for renewable energy. *Mo. Rev. Stat. §135.963; Mo. Rev. Stat. §135.950(25, 26); Mo. Rev. Stat. §137.010.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of property in renewable energy generation zones.

C. QUALIFYING ACTIVITY. Taxpayer must own property in renewable energy generation zones. A renewable energy generation zone is an area which has been found, by a resolution or ordinance adopted by the governing authority having jurisdiction of such area, to be a blighted area and which contains land, improvements, or a lock and dam site which is unutilized or underutilized for the production, generation, conversion, and conveyance of electrical energy from a renewable energy resource. Renewable energy resource include: (a) Wind; (b) Solar thermal sources or photovoltaic cells and panels; (c) Dedicated crops grown for energy production; (d) Cellulosic agricultural residues; (e) Plant residues; (f) Methane from landfills, agricultural operations, or wastewater treatment; (g) Thermal depolymerization or pyrolysis for converting waste material to energy; (h) Clean and untreated wood such as pallets; (i) Hydroelectric power, which shall include electrical energy produced or generated by hydroelectric power generating equipment; (j) Fuel cells using hydrogen produced

by one or more of the renewable resources; or (k) Any other sources of energy, not including nuclear energy, that are certified as renewable by rule by the MO Department of Natural Resources.

D. INCENTIVE AMOUNTS. The tax exemption amount varies by local jurisdiction.

E. INCENTIVE LIMITS. The maximum tax exemption period is 25 years.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

29.10 Missouri state sales tax exemption for solar photovoltaic energy systems

A. GENERAL DESCRIPTION. Missouri provides a sales tax exemption on a taxpayer's purchase of solar photovoltaic energy systems. *Mo. Rev. Stat. §144.030.2(46); S.B. 820 (2022).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to taxpayers who purchase components, materials and supplies used directly to construct or make improvements to a solar photovoltaic energy system.

C. QUALIFYING ACTIVITY. The taxpayer must purchase components, materials and supplies used directly to construct or make improvements to a solar photovoltaic energy system. A solar photovoltaic energy system must be sold or leased to an end user or used to produce, collect and transmit electricity for resale or retail.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

29.11 Missouri state income tax credit for ethanol blend and biodiesel fuel

A. GENERAL DESCRIPTION. Missouri provides an income tax deduction in the amount of \$0.02 per

gallon of biodiesel fuel produced. *Mo. Rev. Stat. §135.778; S.B. 138 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer individuals installing residential energy efficiency improvements.

C. QUALIFYING ACTIVITY. Taxpayer must install residential energy efficiency improvements. Residential energy efficiency improvement are home energy audits and energy efficiency improvements based on recommendations made in such an audit.

1. Home energy audits must be performed by a home energy auditor certified by the MO Department of Natural Resources.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of the cost of residential energy efficiency improvements.

E. INCENTIVE LIMITS. The maximum statewide tax credit amount is \$5 million.

F. INCENTIVE TIMEFRAME. The tax deduction expires December 31, 2020.

G. MISCELLANEOUS.

30. Montana State Tax Incentives for Renewable Energy and Energy Efficiency

30.01 Montana state income tax credit for net metering energy production

A. GENERAL DESCRIPTION. Montana provides an income tax credit in the amount of 35% the cost of net metering system investments. *Mont. Code Ann. §15-32-401 et seq.; No. IT-2011-3; S.B. 337 (2019); S.B. 399 (2021).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations and individuals investing in commercial and net metering systems.

1. The tax credit is applied only against taxes due as a consequence of taxable or net income produced by one of the following: (1) a manufacturing plant that produces alternative energy generating equipment; (2) a new business facility or the expanded portion of an existing business facility for which the alternative energy generating equipment supplies, on a direct contract sales basis, the basic energy needed; or (3) the alternative energy generating equipment in which the investment was made, for the tax credit being claimed.

C. QUALIFYING ACTIVITY. Taxpayer must make commercial and net metering system investments of \$5,000 or more. A net metering system is a facility for the production of electrical energy that: (a) uses as its fuel solar, wind, or hydropower; (b) has a generating capacity of not more than 50 kilowatts; (c) is located on the Taxpayer's premises; (d) operates in parallel with the utility's distribution facilities; and (e) is intended primarily to offset part or all of the Taxpayer's requirements for electricity.

1. A net metering system includes hydroelectric generators that produce 1 megawatt or more and are installed on dams that otherwise do not produce power.

D. INCENTIVE AMOUNTS. The tax credit amount is 35% of the cost of net metering system.

1. The cost of net metering system include only those expenditures that are associated with the purchase, installation, or upgrading of: (a) generating equipment; (b) safety devices and storage components; (c) transmission lines necessary to connect with existing transmission facilities; and (d) transmission lines necessary to connect directly to the purchaser of the electricity when no other transmission facilities are available.

2. The cost of net metering system must be reduced by the amount of any grants provided by the state or federal government.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit must be taken the year the net metering equipment is placed in service. Unused tax credit may be carried over for 7 years. Unused tax credit may be carried over 15 years for commercial system projects, 5 megawatts or larger in size, on a Montana Indian reservation that signs an employment agreement with the tribal government of the reservation. The tax credit expires December 31, 2021.

G. MISCELLANEOUS. Taxpayer may not take other state energy or state investment tax benefits, or with the property tax exemption for non-fossil energy property.

30.02 Montana state property tax abatement for renewable energy production and manufacturing facilities

A. GENERAL DESCRIPTION. Montana provides a property tax abatement in the amount of 50% of the tax on renewable energy production and manufacturing facilities. *Mont. Code Ann. §15-24-3111; Mont. Code Ann. §15-6-157.*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of renewable energy production and manufacturing facilities.

1. Taxpayers must be approved by the MT Department of Environmental Quality.

C. QUALIFYING ACTIVITY. Taxpayer must own new renewable energy production facilities, new

renewable energy manufacturing facilities, and renewable energy research and development equipment. Qualifying renewable energy manufacturing facilities are those (1) that produce materials, components or systems to convert solar, wind, geothermal, biomass, biogas or waste heat resources into useful energy, and (2) whose annual production of renewable energy equipment makes up at least half of the facility's total production. Renewable energy is energy from solar, wind, geothermal, biomass, biogas, non petroleum-based fuel cells, and waste heat sources.

1. Qualifying renewable energy includes fuel cells and components of fuel cells that generate energy using non-fossil fuels.
2. Biomass is any renewable organic matter, including dedicated energy crops and trees, agricultural food and feed crops, agricultural crop wastes and residues, wood wastes and residues, aquatic plants, animal wastes, municipal wastes, and other organic waste materials.
3. Qualifying renewable energy research and development equipment is equipment used primarily for research and development of the efficient use of renewable energy sources.

D. INCENTIVE AMOUNTS. The tax abatement amount is 50% of the property tax due.

E. INCENTIVE LIMITS. The maximum tax abatement amount is the tax abatement amount for the first \$1,000,000 of qualifying renewable energy research and development equipment value.

F. INCENTIVE TIMEFRAME. The tax abatement period is the construction period and the first 15 years after the facility commences operation, not to exceed 19 years.

G. MISCELLANEOUS.

30.03 Montana state corporate license tax credit for alternative renewable energy industries

A. GENERAL DESCRIPTION. Montana provides a corporate license tax credit in the amount of 1% of total wages paid to new employees in alternative renewable energy production industries. *Mont. Code Ann. §15-31-124 et seq.; Mont. Admin. R. §42.4.1602 et seq.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations employing persons in industries producing energy by means of an alternative renewable energy source.

1. Taxpayer must be a new corporation engaging in manufacturing for the first time in Montana or an expanding corporation or expanding or diversifying a present operation to increase total full-time jobs by at least 30%.

C. QUALIFYING ACTIVITY. Taxpayer must employ persons in industry producing energy by means of an alternative renewable energy source. An alternative renewable energy source is a form of energy or matter, such as solar or wind energy, or methane from solid waste, that is capable of being converted into forms of energy useful to humanity, and the technology necessary to make this conversion, when the source is not exhaustible in terms of this planet and when the source or technology is not in general commercial use. Alternative renewable energy source include solar energy; wind energy; geothermal energy; conversion of biomass; fuel cells that do not require hydrocarbon fuel; small hydroelectric generators producing less than one megawatt; or methane from solid waste.

1. New employees are those who: (1) were not employed by the corporation within 5 years of expansion; and (2) are employed in the product's production or, effective January 17, 2008.

D. INCENTIVE AMOUNTS. The tax credit amount is 1% of total wages paid to new employees.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit period is 3 years. Excess tax credit may not be carried over.

G. MISCELLANEOUS.

30.04 Montana state personal income tax credit for energy conservation investments in a building

A. GENERAL DESCRIPTION. Montana provides an income tax credit in the amount of 25% of the cost of energy conservation investments in a residential building. *Mont. Code Ann. §15-32-109; Mont. Admin. R. §42.4.201 et seq.; Montana Energy Incentives Remain in Effect for 2014 Tax Year, Montana Dept. of Rev., 03/20/2015; S.B. 399 (2021).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals making energy conservation investments in a residential building.

C. QUALIFYING ACTIVITY. Taxpayer must make energy conservation investments in a residential building. Energy conservation investments include:

1. Heat recovery ventilators (HRV) meeting the CSA C439-00 standard;
2. Heating and cooling systems that meet or exceed the following ratings: Split system central air conditioning with an EER greater than or equal to 13 and SEER greater than or equal to 16; Package system central air conditioning with an EER greater than or equal to 12 and SEER greater than or equal to 14; Split system air source heat pumps with an HSPF greater than or equal to 8.5, EER greater than or equal to 12.5 and SEER greater than or equal to 15; Package system air source heat pumps with an EER greater than or equal to 12 and SEER greater than or equal to 14; Natural gas or propane furnaces with an AFUE greater than or equal to 95; Oil furnaces with an AFUE greater than or equal to 90;
3. Hot water boilers with an AFUE greater than or equal to 90;
4. Gas, oil, or propane water heaters with an energy factor greater than or equal to 0.82 or thermal efficiency of at least 90%;
5. Electric heat pump water heater energy factor greater than or equal to 2.0;
6. Exterior windows and skylights with a U-factor less than or equal to 0.30;
7. Storm windows with a U-factor less than or equal to 0.30 when measured in

combination with the exterior window over which it is installed;

8. Exterior doors with a U-factor less than or equal to 0.30;

9. Storm doors with a U-factor less than or equal to 0.30 when measured in combination with the exterior door over which it is installed;

10. Insulation of floors, walls, ceilings and roofs in existing buildings;

11. Insulation in the floors, walls, ceilings and roofs of a new building, to the extent that it exceeds the current International Energy Conservation Code with Montana amendments as adopted by the Montana Department of Labor and Industry;

12. Insulation of heating and air conditioning pipes, insulation and sealing of heating, ventilation and air conditioning (HVAC) ducts, and insulation of hot water heaters and tanks;

13. Glass fireplace doors on existing conventional fireplaces;

14. Exhaust fans to reduce air conditioning requirements;

15. Replacement of incandescent light fixtures with fixtures of a more efficient type such as those with electronic ballast and compact or linear fluorescent lamps and LED lights;

16. Lighting controls with cutoff switches to permit the selective use of lights;

17. Programmable thermostats;

18. Caulking and weather stripping of an existing structure (except when it is a standard component in the construction or maintenance of the structure such as the chinking and caulking in a log home);

19. Devices which limit the flow of hot water from shower heads and lavatories.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of cost of energy conservation.

1. For windows, skylights and doors, the cost includes only the amount spent to exceed the current International Energy Conservation Code with Montana amendments as adopted by the Montana Department of Labor and Industry.

E. INCENTIVE LIMITS. The maximum tax credit is \$500 per person.

F. INCENTIVE TIMEFRAME. Excess tax credit may not be carried over.

G. MISCELLANEOUS.

30.05 Montana state property tax assessment for alternative renewable energy generating facilities

A. GENERAL DESCRIPTION. Montana provides property tax assessment to the amount of 50% of the value of alternative renewable energy generating facilities. *Mont. Code Ann. §15-24-1402.*

B. ELIGIBLE TAXPAYERS. The tax assessment exemption is available to Taxpayer owners of alternative renewable energy generating facility property.

1. Taxpayer must be certified by the governing body of the appropriate local taxing jurisdiction.

C. QUALIFYING ACTIVITY. Taxpayer must own alternative renewable energy generating facility property.

1. Qualifying generating plants are those producing 1 megawatt (MW) or more by means of an alternative renewable energy source.

D. INCENTIVE AMOUNTS. The tax assessment exemption amount is 50% of the property tax due, declining over 10-years.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax assessment exemption period is 10 years. The tax credit expires December 31, 2021.

G. MISCELLANEOUS. The tax assessment exemption may be recaptured if the ownership or use of the qualifying generating plants does not continue to meet applicable requirements.

30.06 Montana state property tax exemption for alternative renewable energy generating facilities

A. GENERAL DESCRIPTION. Montana provides a state property tax exemption in the amount of 100% for alternative renewable energy generating facilities. *Mont. Code Ann. §15-6-225.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of alternative renewable energy generating facility property.

C. QUALIFYING ACTIVITY. Taxpayer must own alternative renewable energy generating facility property. Alternative renewable energy generating facility property include new electricity generating facilities built in Montana with a nameplate capacity less than 1 megawatt (MW) that use an alternative renewable energy source. Alternative renewable energy source includes energy such as solar energy, wind energy, geothermal energy, conversion of biomass, fuel cells that do not require hydrocarbon fuel, small hydroelectric generators producing less than 1 MW, and methane from solid waste that is used to generate useful energy such as electricity.

1. Qualifying alternative renewable energy generating facility includes any combination of a generator or generators, associated prime movers, and other associated machinery and equipment that are normally operated together to produce electric power, but does not include the owner's business improvements and personal property.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

30.07 Montana state property tax exemption for renewable energy systems

A. GENERAL DESCRIPTION. Montana provides a property tax exemption in the amount of 100% of

the tax on renewable energy systems. *Mont. Code Ann. §15-6-224; Mont. Code Ann. §15-32-102.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy systems. Renewable energy systems include solar photovoltaics, passive solar, wind, solid waste, decomposition of organic wastes, geothermal, fuel cells that do not require hydrocarbon fuel, small hydropower plants, and low-emission wood or biomass combustor systems.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS. The maximum tax exemption amounts are \$20,000 for single-family residential dwellings and \$100,000 for multifamily residential dwellings or nonresidential structures.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

30.08 Montana state corporate license or income tax credit for biodiesel blending and storage property

A. GENERAL DESCRIPTION. Montana provides a corporate license or income tax credit in the amount of 15% of the cost of biodiesel blending and storage property. *Mont. Code Ann. §15-32-703. S.B. 34 (2021); S.B. 57 (2021).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations purchasing depreciable property used for storing or blending biodiesel with petroleum diesel for sale.

1. Taxpayer must be an owner of a business that blends biodiesel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase depreciable property used for storing or blending biodiesel with petroleum diesel for sale.

1. Qualifying blended biodiesel must be made entirely from Montana-produced feedstocks.

2. Qualifying sales of biodiesel must be at least 2% of the taxpayer's total diesel sales by the end of the 3rd year.

D. INCENTIVE AMOUNTS. The tax credit amount is 15% of the cost of biodiesel blending and storage property.

1. Qualifying costs include those incurred in the 2 tax years before the taxpayer begins blending biodiesel fuel for sale or in any tax year in which the taxpayer is blending biodiesel fuel for sale.

E. INCENTIVE LIMITS. The maximum tax credit amounts are \$52,500 for a distributor and \$7,500 for an owner or operator of a motor fuel outlet.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried over 7 years. The tax credit expires December 31, 2021.

G. MISCELLANEOUS. The tax credit does not reduce basis for any depreciation or amortization deduction for the investment or other tax incentive to which Taxpayer otherwise may be entitled. The tax credit may be recaptured if qualifying facility ceases blending of biodiesel with petroleum diesel for sale for a period of 12 continuous months within 5 years.

30.09 Montana state corporate license tax credit for alternative fuel motor vehicle conversion

A. GENERAL DESCRIPTION. Montana provides a corporate license tax credit in the amount of 50% of the equipment and labor costs in the conversion of a motor vehicle to operate on alternative fuel. *Mont. Code Ann. §15-30-164; Mont. Code Ann. §15-30-2320; Mont. Code Ann. §15-31-137; S.B. 399 (2021).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations converting motor vehicles to operate on alternative fuel.

1. Taxpayer small businesses (or a partnerships) must allocate the tax credit to shareholders (or partners) using the same proportion used to report the entity's income or loss for Montana income tax purposes.

C. QUALIFYING ACTIVITY. Taxpayer must convert motor vehicles to operate on alternative fuel. Alternative fuel is: (1) natural gas; (2) liquefied petroleum gas; (3) liquefied natural gas; (4) hydrogen; (5) electricity; or (6) any other fuel if at least 85% of the fuel is methanol, ethanol or other alcohol, ether, or any combination of them.

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the equipment and labor costs in the conversion of a motor vehicle.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$500 for converting motor vehicles with a gross weight of 10,000 lbs. or less and \$1,000 for vehicles over 10,000 lbs. The maximum tax credit allowed to be claimed is Taxpayer's income tax liability.

F. INCENTIVE TIMEFRAME. The tax credit must be applied in the year the conversion is made. Unused tax credit may not be carried forward. The tax credit expires December 31, 2021.

G. MISCELLANEOUS.

30.10 Montana state corporate income tax deduction for energy conservation capital investments

A. GENERAL DESCRIPTION. Montana provides an income tax deduction in the amount of 100% of the cost of energy conservation capital investments. *Mont. Code Ann. §15-32-103 et seq.; Mont. Admin. R. 42.23.421.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer corporations making energy conservation capital investment in a building.

1. Taxpayer may not be primarily engaged in providing gas or electricity derived from gas extraction or hydroelectric development.

C. QUALIFYING ACTIVITY. Taxpayer must make energy conservation capital investments in a building. Energy conservation is reducing the waste or dissipation of energy or reducing the amount of energy necessary to accomplish a given quantity of work.

1. Energy conservation property does not include siding.

D. INCENTIVE AMOUNTS. For residential projects, the tax deduction amount is 100% of first \$1,000 expended, smaller amounts for subsequent spending. For non-residential projects, the tax deduction amount is 100% of first \$2,000 expended, smaller amounts for subsequent spending.

E. INCENTIVE LIMITS. The maximum tax deduction amounts are \$1,800 for a residence and \$3,600 for a non-residence.

F. INCENTIVE TIMEFRAME. Unused tax credit may not be carried forward.

G. MISCELLANEOUS.

30.11 Montana state personal tax credit for residential non-fossil form energy systems

A. GENERAL DESCRIPTION. Montana provides a personal income tax credit in the amount of 100% the cost of residential non-fossil form energy systems. *Mont. Code Ann. §15-32-201; Mont. Admin. R. 42.4.104; S.B. 399 (2021).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals installing and placing in service an energy system using a recognized non-fossil form of energy on their home.

C. QUALIFYING ACTIVITY. Taxpayer must install residential non-fossil form energy systems on their home. Residential non-fossil form energy systems include solar energy, including passive solar systems; wind; solid waste; the decomposition of organic wastes; geothermal; fuel cells that do not require hydrocarbon fuel; or an alternative energy system; a system that

produces electric power from biomass or solid wood wastes; or a small system that uses water power by means of an impoundment that is not over 20 acres in surface area.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of cost of the residential non-fossil form energy systems.

E. INCENTIVE LIMITS. The maximum tax credit is \$500.

F. INCENTIVE TIMEFRAME. Unused credit may be carried forward 4 years. The tax credit expires December 31, 2021.

G. MISCELLANEOUS.

30.12 Montana state personal income tax credit for residential geothermal heating or cooling system

A. GENERAL DESCRIPTION. Montana provides an income tax credit in the amount of 100% the cost of residential geothermal heating or cooling system. *Mont. Code Ann. §15-32-115; S.B. 399 (2021)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals installing geothermal heating or cooling systems in their new principal dwelling.

C. QUALIFYING ACTIVITY. Taxpayer must install a geothermal heating or cooling system in their new principal dwelling.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the installation cost.

1. Installation costs include the cost of: (a) trenching, well drilling, casing, and downhole heat exchangers; (b) piping, control devices, and pumps that move heat from the earth to heat or cool the building; (c) ground source or ground coupled heat pumps; (d) liquid-to-air heat exchanger, ductwork, and fans installed with a ground heat well that pump heat from a well into a building; and (e) design and labor.

E. INCENTIVE LIMITS. The maximum tax credit is \$1500.

F. INCENTIVE TIMEFRAME. Unused credit may be carried forward 7 years. The tax credit expires December 31, 2021.

G. MISCELLANEOUS.

30.13 Montana state property tax exemption for ethanol production facilities

A. GENERAL DESCRIPTION. Montana provides a property tax exemption in the amount of 100% of the tax on ethanol production facilities. *Mont. Code Ann. §15-6-220*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of ethanol production facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own ethanol production facilities.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 years.

G. MISCELLANEOUS.

30.14 Montana state property tax abatement for alternative fuel production

A. GENERAL DESCRIPTION. Montana provides a property tax abatement in the amount of 50% of the tax on alternative fuel production. *Mont. Code Ann. §15-24-3102; Mont. Code Ann. §15-6-157; S.B. 510 (2023)*.

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of renewable diesel production or sustainable aviation fuel production facilities.

1. Taxpayers must be approved by the MT Department of Environmental Quality.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable diesel production facility or sustainable aviation fuel production facility. A renewable diesel production facility is improvements and personal property used for the production and onsite storage of renewable diesel. A sustainable aviation fuel production facility is improvements and personal property used for the production and onsite storage of sustainable aviation fuel

1. Renewable diesel is a biomass-derived fuel that is suitable for use in diesel engines that is hydrocarbon produced by hydrotreating and also through gasification, pyrolysis, or other biochemical and thermochemical technology, or any combination of these technologies. The term includes renewable diesel fuel that meets the ASTM D975 specification for petroleum diesel in the United States.

2. Sustainable aviation fuel is an aviation fuel derived from renewable resources that enables a reduction in net life cycle carbon dioxide emissions compared to conventional fuels. The term includes fuel that meets the ASTM D7566 specification for nonpetroleum synthesized jet fuel in the United States.

D. INCENTIVE AMOUNTS. The tax abatement amount is 50% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement period is the construction period and the first 15 years after the facility commences operation, not to exceed 19 years.

G. MISCELLANEOUS. A renewable diesel production facility or sustainable aviation fuel production facility, or both, may not receive the tax abatement during the same tax year that the new or expanding industry property tax abatement is received.

31. Nebraska State Tax Incentives for Renewable Energy and Energy Efficiency

31.01 Nebraska state income tax credit for zero-emission facilities

A. GENERAL DESCRIPTION. Nebraska provides an income tax credit in the amount of \$0.0005/kwh of electricity generated by new zero-emission facilities from renewable energy. *Neb. Rev. Stat. §77-27,235.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of new zero-emission facilities.

1. Taxpayers receiving a sales tax exemption with regard to a C-BED or community-based energy development project for the new zero-emission facility are not eligible.

C. QUALIFYING ACTIVITY. Taxpayer must produce electricity generated by a new zero-emission facility. A new zero-emission facility is an electrical generating facility located in Nebraska that utilizes an eligible renewable resources as its fuel source. Eligible renewable resources are wind, moving water, solar, geothermal, fuel cell, methane gas, or photovoltaic technology.

1. Qualifying zero-emission facilities must not result in any pollution or emissions that are, or may be, harmful to the environment as certified by the NE Department of Environmental Quality.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.0005 for each kilowatt-hour of electricity generated.

E. INCENTIVE LIMITS. The tax credit may be used to obtain a refund of state sales and use taxes. The statewide maximum annual tax credit amount is \$750,000.

F. INCENTIVE TIMEFRAME. The tax credit period is 10 years. The tax credit expires December 31, 2017.

G. MISCELLANEOUS.

31.02 Nebraska state sales tax exemption for community-based energy generation projects

A. GENERAL DESCRIPTION. Nebraska provides a sales tax exemption in the amount of 100% of the cost of community-based energy generation project property. *Neb. Rev. Stat. §70-1903, §77-2704.57; L.B. 916 (2008); L.B. 561 (2009); L.B. 402 (2014).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of community-based energy generation project property.

1. Eligible Taxpayer owners include:
- (i). a Nebraska resident;
 - (ii). a limited liability company that is organized under the Limited Liability Company Act and that is entirely made up of members who are Nebraska residents;
 - (iii). a Nebraska nonprofit corporation;
 - (iv). an electric supplier, subject to a 15% limitation (25% for multiple electric suppliers) for a single C-BED project;
 - (v). a tribal council;
 - (vi). a domestic corporation;
 - (vii). a cooperative corporation.

C. QUALIFYING ACTIVITY. Taxpayer must own and purchase property for a new community-based energy generation project. A community-based energy development is a new energy generation project using wind, solar, biomass, or landfill gas as the fuel source. s.

1. Qualifying community-based energy generation project must have at least 25% of the gross power purchase agreement payments flowing to the qualified owner or owners or as payments to the local community.
2. Qualifying community-based energy generation project must be certified by tribal council or county board.

3. Qualifying gross power purchase agreement payments are reduced by the debt financing payments.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

31.03 Nebraska state sales tax exemption for biofuel for generating electricity

A. GENERAL DESCRIPTION. Nebraska provides a sales tax exemption in the amount of 100% of the cost of wood and corn used as a fuel source for generating electricity. *Neb. Rev. Stat. §77-2704.13; Rev. Ruling 01-10-1.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of wood and corn used as a fuel source for generating electricity.

1. Taxpayer must be certified by the NE Department of Revenue.

C. QUALIFYING ACTIVITY. Taxpayer must use more than 50% of the amount purchased directly in the generation of electricity.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

31.04 Nebraska state property tax exemption for renewable energy equipment

A. GENERAL DESCRIPTION. Nebraska provides a property tax exemption in the amount of 100% of the tax due on renewable energy equipment. *Neb.*

Rev. Stat. §77-202(9); Neb. Rev. Stat. §77-105.10; L.B. 1048 (2010); Directive 16-1.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of wind energy equipment.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy equipment. Renewable energy equipment is depreciable tangible personal property used directly in the generation of electricity using solar, biomass, or landfill gas as the fuel source. Renewable energy equipment includes wind turbines, rotors and blades, towers, solar panels, trackers, generating equipment, transmission components, substations, supporting structures or racks, inverters, and other system components such as wiring, control systems, switchgears, and generator step-up transformers.

1. Renewable energy equipment must have a nameplate capacity equal to or greater than 100 kW.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

31.05 Nebraska state sales tax exemption for renewable energy production

A. GENERAL DESCRIPTION. Nebraska provides a sales tax exemption in the amount of 100% of the sales tax due on renewable energy production equipment. *Neb. Rev. Stat. §77-5715.3; L.B. 104 (2013).*

B. ELIGIBLE TAXPAYERS. The sales tax exemption is available to Taxpayer purchasers of renewable energy production equipment and owners of renewable energy production projects.

1. Taxpayer must be certified by the NE Tax Commissioner.

2. Tax incentives previously allowed and the future allowance of incentives may be

transferred when a qualified project is transferred in its entirety by sale or lease to another taxpayer or in an acquisition of assets.

C. QUALIFYING ACTIVITY. Taxpayer must buy renewable energy production equipment and place in service projects that employ qualified new employees. Renewable energy production is production of electricity by using one or more sources of renewable energy to produce electricity for sale. Renewable energy includes, but is not limited to, wind, solar, geothermal, hydroelectric, biomass, and transmutation of elements.

1. Taxpayer must make an investment in qualified property of at least \$20 million.
2. The average wage of qualified new employees must be 60-125% of the state average annual wage for the year of application

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS. If Taxpayer fails to meet the required levels of employment or investment for the applicable project by the end of the 4th or 6th year, depending on the project tier, all or a portion of the incentives shall be recaptured or disallowed.

31.06 Nebraska state property tax exemption for renewable energy production

A. GENERAL DESCRIPTION. Nebraska provides a property tax exemption in the amount of 100% of the property tax due on renewable energy production projects. *Neb. Rev. Stat. §77-5715.3; L.B. 104 (2013)*.

B. ELIGIBLE TAXPAYERS. The property tax exemption is available to Taxpayer owners of renewable energy production equipment and projects.

1. Taxpayer must be certified by the NE Tax Commissioner.
2. Tax incentives previously allowed and the future allowance of incentives may be transferred when a qualified project is transferred in its entirety by sale or lease to another taxpayer or in an acquisition of assets.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy production equipment and projects that employ qualified new employees. Renewable energy production is production of electricity by using one or more sources of renewable energy to produce electricity for sale. Renewable energy includes, but is not limited to, wind, solar, geothermal, hydroelectric, biomass, and transmutation of elements.

1. Taxpayer must make an investment in qualified property of at least \$20 million.
2. The average wage of qualified new employees must be 60-125% of the state average annual wage for the year of application.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS. If Taxpayer fails to meet the required levels of employment or investment for the applicable project by the end of the 4th or 6th year, depending on the project tier, all or a portion of the incentives shall be recaptured or disallowed.

31.07 Nebraska state income tax credit for renewable energy production investments

A. GENERAL DESCRIPTION. Nebraska provides an income tax credit in the amount of 3-15% of qualified investments. *Neb. Rev. Stat. §77-5715.3; L.B. 104 (2013)*.

B. ELIGIBLE TAXPAYERS. The tax credits are available to Taxpayer owners of and investors in renewable energy production projects.

1. Taxpayer must be certified by the NE Tax Commissioner.
2. Taxpayer flow-through entities may distribute the tax credit to members, partners, or shareholders in the same manner as income.
3. Tax incentives previously allowed and the future allowance of incentives may be transferred when a qualified project is transferred in its entirety by sale or lease to another taxpayer or in an acquisition of assets.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy production equipment and projects that employ qualified new employees. Renewable energy production is production of electricity by using one or more sources of renewable energy to produce electricity for sale. Renewable energy includes, but is not limited to, wind, solar, geothermal, hydroelectric, biomass, and transmutation of elements.

1. Taxpayer must make an investment in qualified property of at least \$20 million.
2. The average wage of qualified new employees must be 60-125% of the state average annual wage for the year of application.

D. INCENTIVE AMOUNTS. The tax credit amount is 3-15% of qualified investments.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried over for 9-14 years.

G. MISCELLANEOUS. If Taxpayer fails to meet the required levels of employment or investment for the applicable project by the end of the 4th or 6th year, depending on the project tier, all or a portion of the incentives shall be recaptured or disallowed.

31.08 Nebraska state income tax credit for renewable energy production wages

A. GENERAL DESCRIPTION. Nebraska provides an income tax credit in the amount of 3-6% of average wage of new employees. *Neb. Rev. Stat. §77-5715.3; L.B. 104 (2013)*.

B. ELIGIBLE TAXPAYERS. The tax credits are available to Taxpayer owners and employers of renewable energy production projects.

1. Taxpayer must be certified by the NE Tax Commissioner.
2. Taxpayer flow-through entities may distribute the tax credit to members, partners, or shareholders in the same manner as income.
3. Tax incentives previously allowed and the future allowance of incentives may be transferred when a qualified project is transferred in its entirety by sale or lease to another taxpayer or in an acquisition of assets.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy production equipment and projects that employ qualified new employees. Renewable energy production is production of electricity by using one or more sources of renewable energy to produce electricity for sale. Renewable energy includes, but is not limited to, wind, solar, geothermal, hydroelectric, biomass, and transmutation of elements.

1. Taxpayer must make an investment in qualified property of at least \$20 million.
2. The average wage of qualified new employees must be 60-125% of the state average annual wage for the year of application.

D. INCENTIVE AMOUNTS. The tax credit amount is 3-6% of average wage of new employees.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried over for 9-14 years.

G. MISCELLANEOUS. If Taxpayer fails to meet the required levels of employment or investment for the applicable project by the end of the 4th or 6th year, depending on the project tier, all or a portion of the incentives shall be recaptured or disallowed.

31.09 Nebraska state income tax credit for qualified high-technology fields

A. GENERAL DESCRIPTION. Nebraska provides an income tax credit in the amount of 35-40% of the amount invested in qualified high-technology field research. *Neb. Rev. Stat. §77-6306(1); Neb. Rev. Stat. §77-6301 et seq.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals investing in a qualified fund or qualified small business involving qualified high-technology fields.

1. Taxpayer must be certified by the NE Director of Economic Development.

C. QUALIFYING ACTIVITY. Taxpayer must invest in a qualified fund or qualified small business involving qualified high-technology field research. High-technology field includes renewable energy, energy efficiency and conservation, and cellulosic ethanol. A qualified investment must be made in exchange for common stock, a partnership or membership interest, preferred stock, debt with mandatory conversion to equity, or an equivalent ownership interest.

1. A qualified investment must be at least: (i) \$25,000 in a calendar year for a qualified investor; or (ii) \$50,000 in a calendar year by a qualified fund.
2. A qualified small business must be certified by the NE Director of Economic Development and must have 25 or fewer employees.

D. INCENTIVE AMOUNTS. The tax credit amount is 35% of the amount invested and 40% of the amount invested in a distressed area.

1. A distressed area is a municipality, a county with a population of fewer than 100,000 inhabitants according to the most recent federal decennial census, an unincorporated area within a county, or a census tract in Nebraska that: (a) has an unemployment rate which exceeds the statewide average unemployment rate; (b) has a per capita income below the statewide average per capita income; or (c) had a population decrease between the two most recent federal decennial censuses.

E. INCENTIVE LIMITS. The maximum annual statewide tax credit is \$3 million. The maximum annual credit is \$300,000 per taxpayer and \$1 million per qualified small business.

F. INCENTIVE TIMEFRAME. The tax credit period is 3 years. The tax credit expires December 31, 2019.

G. MISCELLANEOUS.

32. Nevada State Tax Incentives for Renewable Energy and Energy Efficiency

32.01 Nevada state sales tax abatement for renewable energy technologies

A. GENERAL DESCRIPTION. Nevada provides a sales tax abatement in the amount of 100% of the tax above 0.25% on renewable energy technologies. Nev. Rev. Stat. §701A.230; Nev. Rev. Stat. §701A.360; A.B. 522 (2009); Nev. Admin. Code ch. 701A, §§.010 to .370; S.B. 448 (2021).

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer businesses purchasing renewable energy production facility property.

1. Taxpayer must be certified by the NV Office of Energy.

C. QUALIFYING ACTIVITY. Taxpayer must own a renewable energy production facility and purchase renewable energy technologies. Renewable energy production facilities are real and personal property used to generate electricity from renewable energy resources including solar, wind, biomass, fuel cells, geothermal or hydro, and a facility for the storage of energy from renewable generation or a hybrid renewable generation and energy storage facility.

1. Renewable energy production facilities do not include government-leased or residential property.
2. Renewable energy production facilities must have a capacity of at least 10 megawatts (MW).
3. Qualifying solar energy facilities must generate at least 25,840,000 British thermal units of process heat per hour.
4. Biomass is organic matter that is available on a renewable basis, including, without limitation, agricultural crops and agricultural wastes and residues; wood and wood wastes and residues; animal wastes; municipal wastes; and aquatic plants.
5. Renewable energy production facilities must meet certain job creation requirements, based on whether the facility is located in a

county whose population is at least 100,000 or a city whose population is at least 60,000, including: (1) employing a certain number of full-time employees during construction, a percentage of whom must be Nevada residents; (2) ensuring that the hourly wage paid to the facility's employees and construction workers is a certain percentage higher than the average statewide hourly wage; (3) making a capital investment of a specified amount in the state of Nevada; and (4) providing the construction workers with health insurance, which includes coverage for the worker's dependents.

6. Energy storage technology is technology that stores energy as potential, kinetic, chemical or thermal energy that can be released at a later time, including, without limitation, batteries, flywheels, electrochemical capacitors, compressed-air storage and thermal storage devices.

7. Facility for the storage of energy from renewable generation is a facility that is constructed or installed for the sole purpose of storing electric energy received from a facility for the generation of electricity from renewable energy for release at a later time, including, without limitation, a facility that is designed to use energy storage technology. Facility for the storage of energy from renewable generation does not include a facility that is located on a residential property.

8. Hybrid renewable generation and energy storage facility is a facility that includes both a wholesale facility for the generation of electricity from renewable energy and a facility for the storage of energy from renewable generation.

D. INCENTIVE AMOUNTS. The tax abatement amount is 100% sales taxes paid in excess of 0.25%.

E. INCENTIVE LIMITS. The maximum tax abatement amount is an abatement to 0.25% minimum sales tax.

F. INCENTIVE TIMEFRAME. The tax abatement period is 3 years. The tax abatement expires June 30, 2049.

G. MISCELLANEOUS.

32.02 Nevada state property tax abatement for renewable energy production facilities

A. GENERAL DESCRIPTION. Nevada provides a property tax abatement in the amount of 55% of the cost of renewable energy production facilities. *Nev. Rev. Stat. §701A.220; A.B. 522 (2009); Nev. Energy Comr., Regs. §§701A.1 to -.36, 8/13/10.*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer businesses owning renewable energy production facilities.

1. Taxpayer must be certified by the NV Office of Energy.

C. QUALIFYING ACTIVITY. Taxpayer must own a renewable energy production facility. Renewable energy production facilities are real and personal property used to generate electricity from renewable energy resources including solar, wind, biomass, fuel cells, geothermal or hydro.

1. Renewable energy production facilities do not include government-leased or residential property.
2. Renewable energy production facilities must have a capacity of at least 10 megawatts (MW).
3. Qualifying solar energy facilities must generate at least 25,840,000 British thermal units of process heat per hour.
4. Biomass is organic matter that is available on a renewable basis, including, without limitation, agricultural crops and agricultural wastes and residues; wood and wood wastes and residues; animal wastes; municipal wastes; and aquatic plants.
5. Renewable energy production facilities must meet certain job creation requirements including: (1) employing a certain number of full-time employees during construction, a percentage of whom must be Nevada residents; (2) ensuring that the hourly wage paid to the facility's employees and construction workers is a certain percentage higher than the average statewide hourly wage; (3) making a capital investment of a specified amount in the state of Nevada; and (4) providing the construction workers with

health insurance, which includes coverage for the worker's dependents.

D. INCENTIVE AMOUNTS. The tax abatement amount is 55% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement period is 20 years. The tax abatement expires June 30, 2049.

G. MISCELLANEOUS.

32.03 Nevada state property tax exemption for renewable energy systems

A. GENERAL DESCRIPTION. Nevada provides a property tax exemption in the amount of 100% of the tax on renewable energy systems. *Nev. Rev. Stat. §701A.200.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy systems installed in any residential, commercial or industrial building.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy systems. Renewable energy systems include solar, wind, geothermal, solid waste and hydroelectric systems used to heat or cool a building, heat or cool water used by a building, or generate electricity used by the building.

1. Renewable energy systems may be installed in any residential, commercial or industrial building.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS. Taxpayer may not claim another state tax abatement or exemption for the same commercial or industrial building.

32.04 Nevada state property tax financing option for renewable energy and energy efficient technologies

A. GENERAL DESCRIPTION. Nevada provides a property tax financing option for municipalities for renewable energy and energy efficient technologies. *Nev. Rev. Stat. §271.010 et seq.; S.B. 358 (2009).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing renewable energy and energy efficient technologies.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance renewable energy and energy efficient technologies.

D. INCENTIVE AMOUNTS. The tax financing amount is varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

32.05 Nevada state property tax abatement for LEED certified energy efficient green buildings

A. GENERAL DESCRIPTION. Nevada provides a property tax abatement in amounts ranging from 25-35% of the tax on LEED certified energy efficient green buildings. *Nev. Rev. Stat. §701A.100; Nev. Rev. Stat. §701A.110; Adopted Regulation R116-07; Nev. Admin. Code ch. 701A, §290; Adopted Regulation R128-18; S.B. 442 (2021).*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of LEED certified energy efficient green buildings.

1. Taxpayer must be certified by the NV Office of Energy.

C. QUALIFYING ACTIVITY. Taxpayer must own non-residential or multi-family residential buildings earning either Silver, Gold or Platinum certification under the LEED Green Building Rating System.

Qualifying LEED Silver buildings must earn at least 5 points for energy conservation. Qualifying LEED Gold buildings must earn at least 7 points for energy conservation. Qualifying LEED Platinum buildings must earn at least 11 point energy conservation.

1. Qualifying buildings may not receive funding from any governmental entity in Nevada for the acquisition, design or construction of the building.

2. Energy efficiency standards developed by the Green Building Initiative are equivalent to the standards established by the LEED Green Building Rating System for the purpose of determining the eligibility of a building or other structure for a partial abatement.

3. Qualifying buildings do not include improvements on real property the principal use of which is as a parking facility for vehicles.

4. Green Globes Green Building Rating System may be used to determine eligibility of qualifying buildings.

D. INCENTIVE AMOUNTS. For LEED Silver buildings, the tax abatement amount is 25% reduction of the property tax payable each year. For LEED Gold buildings, the tax abatement amount is 30% reduction of the property tax payable each year. For LEED Platinum buildings, the tax abatement amount is 35% reduction of the property tax payable each year.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement period is 10 years. Taxpayer must provide LEED certification by 48 months after applying for the partial abatement. The tax abatement expires June 30, 2021.

G. MISCELLANEOUS.

33. New Hampshire State Tax Incentives for Renewable Energy and Energy Efficiency

33.01 New Hampshire state property tax payment in lieu of taxes for renewable generation facilities

A. GENERAL DESCRIPTION. New Hampshire provides a property tax payment in lieu of taxes option for municipalities for renewable generation facilities. *N.H. Rev. Stat. Ann. ch. 72:73 et seq.; N.H. Rev. Stat. Ann. ch. 362-F:4*

B. ELIGIBLE TAXPAYERS. The tax payment in lieu of taxes is available to Taxpayer owners of renewable generation facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own a renewable generation facility. Renewable generation facilities are facilities which produces electric energy for resale solely by the use, as a primary energy source, of renewable energy including the land, all rights, easements, and other interests thereto, and all dams, buildings, structures, and other improvements situated thereon which are necessary or incidental to the production of power at the facility.

1. Renewable energy includes (a) wind energy; (b) geothermal energy; (c) hydrogen derived from biomass fuels or methane gas; (d) ocean thermal, wave, current, or tidal energy; (e) methane gas; (f) eligible biomass technologies; and (g) the equivalent displacement of electricity, as determined by the commission, by end-use customers, from solar hot water heating systems used instead of electric hot water heating.

D. INCENTIVE AMOUNTS. The tax payment in lieu of taxes amount varies by local jurisdiction.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax payment in lieu of taxes period is 5 years.

G. MISCELLANEOUS.

33.02 New Hampshire state property tax exemption for renewable-energy systems and electric energy storage systems

A. GENERAL DESCRIPTION. New Hampshire provides a property tax exemption in the amount of 100% of the tax on renewable-energy systems and electric energy storage systems. *N.H. Rev. Stat. Ann. ch. 72:61 et seq., ch. 72:84 et seq. H.B. 464 (2019).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable-energy system property and electric energy storage system property.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable-energy system property or electric energy storage system property. Renewable-energy system property includes solar-energy systems (photovoltaic systems, solar space-heating systems, solar water-heating systems, passive solar-energy systems); wind-energy systems, and wood-fired central heating systems. Solar energy systems are systems which utilizes solar energy to heat or cool the interior of a building or to heat water for use in a building and which includes one or more collectors and a storage container or system which provides electricity for a building by the use of photovoltaic panels. Wind-powered energy systems are wind-powered devices which supplement or replace electrical power supplied to households or businesses at the immediate site. Wood heating energy systems are wood burning appliances designed to operate as a central heating system to heat the interior of a building. Electric energy storage system is a facility located behind a retail meter that stores electrical energy that is otherwise produced by an electricity generator or uses electricity to concentrate and store thermal energy, by electrical, chemical, mechanical, or thermal means, for discharge or use at a later time, whether in the form of thermal energy to meet space or process heating or cooling loads or electricity, which can be used to reduce peak loads, compensate for variability in renewable energy production, or provide other grid services, and which does not participate in any wholesale energy markets administered by ISO New England as a registered asset or otherwise.

1. Qualifying wood heating energy systems may burn wood solely or burn wood in combination with another fuel.
2. Qualifying wood heating energy systems include a central appliance to distribute heat by a series of pipes, ducts or similar distribution system throughout a single building or group of buildings.
3. Qualifying wood heating energy systems does not include a fireplace, meaning a hearth, fire chamber or similarly prepared place with a chimney intended to be usable in an open configuration whether or not it may also be closed and operated closed; or a wood stove meaning a wood burning appliance designed for space heating purposes which does not operate as a central heating system or as a sole source of heat.
4. Qualifying solar energy systems include all photovoltaics, inverters, and storage.
5. Qualifying wind-powered energy systems include all wind-powered devices, inverters, and storage.
6. Qualifying electric energy storage systems do not include conventional electric resistance or gas domestic hot water heaters.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS. The local jurisdiction must adopt local laws to grant the property tax exemption for electric energy storage systems.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

34. New Jersey State Tax Incentives for Renewable Energy and Energy Efficiency

34.01 New Jersey state income tax credit for alternative energy technology company

A. GENERAL DESCRIPTION. New Jersey provides an income tax credit over 3 years in the amount of 10% per year of qualifying investment for environmental technology businesses, including businesses developing of alternative energy sources. *N.J. Rev. Stat. §54:10A.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer investors making a qualifying investment in an environmental technology business.

C. QUALIFYING ACTIVITY. Taxpayer must make qualifying investments in small New Jersey-based environmental technology business. Environmental technology business is a high-technology business in assessment and prevention of threats or damage to human health or the environment, environmental cleanup or the development of alternative energy sources.

1. A qualifying investment is the non-refundable at-risk cash investment made by an unrelated entity and transferred to a small New Jersey-based high-technology business in exchange for stock, interests in partnerships or joint ventures, licenses, rights to use technology, marketing rights, warrants, options or any similar rights, including, but not limited to, options or rights to acquire any of the above items.

2. A small New Jersey-based high-technology business is a corporation doing business, employing or owning capital or property, or maintaining an office in New Jersey that has qualifying research expenses paid or incurred for research conducted in the state, or that conducts pilot scale manufacturing in the state, and that has fewer than 225 employees, at least 75% of whom are New Jersey-based employees filling positions or jobs within the state.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of qualifying investments in each tax year.

E. INCENTIVE LIMITS. The maximum annual tax credit is \$500,000 for each qualifying investment. The maximum annual tax credit that may be claimed is 50% of the tax liability otherwise due.

F. INCENTIVE TIMEFRAME. The tax credit period is 3 years. Unused tax credit may be carried forward 15 years. Unused tax credit may not be carried over by target corporations in a corporate acquisition.

G. MISCELLANEOUS. Qualifying investments may not be used for the research and development tax credit. A corporation must take all other tax credits to which it is entitled before claiming the tax credit for investments in small New Jersey-based high-technology businesses.

34.02 New Jersey state property tax exemption for renewable energy systems

A. GENERAL DESCRIPTION. New Jersey provides a property tax exemption in the amount of 100% of the tax on renewable energy systems. *N.J. Rev. Stat. §54:4-3.113; N.J. Rev. Stat. §4:1C-11 et seq.; N.J. Rev. Stat. §54:4-23.1 et seq. A.B. 5434 (2020).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy system property.

1. Taxpayer must be certified by their local assessor.

2. Taxpayer owners of renewable energy system property on agriculture and horticulture sites qualify if: (i) the property continues to be used as an operating farm; (ii) the property was valued, assessed, and taxed as agricultural or horticultural for the year immediately preceding installation of the renewable energy equipment; (iii) the energy generated is used primarily by the agricultural operation on the property; (iv) the Taxpayer owner has filed a conservation plan with the soil conservation district; (v) the area devoted to the renewable energy facilities is equal to no more than 20% of the area on the property

devoted to agricultural purposes; and (vi) the renewable energy facilities occupy no more than 5 acres of the property.

C. **QUALIFYING ACTIVITY.** Taxpayer must own renewable energy systems used to meet on-site electricity, heating, cooling, or general energy need. Renewable energy systems include solar PV, wind, fuel cells, sustainable biomass, geothermal electric, landfill gas, hydroelectric, resource recovery, wave, and tidal systems that produce electricity, solar thermal energy, and geothermal energy.

1. Qualifying renewable energy systems must be installed on residential, commercial, industrial, or mixed use buildings as accessory uses.
2. Qualifying renewable energy systems must be certified by the NJ Board of Public Utilities and the Commissioner of Community Affairs.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the property tax due.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.**

G. **MISCELLANEOUS.** The tax exemption may be recaptured if the structure or equipment has ceased to be used for the primary purpose of providing renewable energy to provide all or a portion of the electrical, heating, cooling, or general energy needs of the structure and is being used for a different primary purpose or if the equipment, design and construction is no longer suitable and reasonably adequate for the purpose of using renewable energy to provide all or a portion of the electrical, heating, cooling, or general energy needs of the structure.

34.03 New Jersey state sales tax exemption for solar energy equipment

A. **GENERAL DESCRIPTION.** New Jersey provides a sales tax exemption in the amount of 100% of the tax on solar energy equipment. *N.J. Stat. §54:32B-8.33.*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers of solar energy equipment.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase solar energy equipment. Solar energy equipment is solar energy devices or systems designed to provide heating or cooling, or electrical or mechanical power by collecting and transferring solar-generated energy and including mechanical or chemical devices for storing solar generated energy.

1. Solar energy equipment includes equipment for passive solar design.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the sales tax due.

E. **INCENTIVE LIMITS**

F. **INCENTIVE TIMEFRAME**

G. **MISCELLANEOUS**

34.04 New Jersey state sales tax exemption for cogeneration facility equipment

A. **GENERAL DESCRIPTION.** New Jersey provides a sales tax exemption in the amount of 100% of the tax on cogeneration facility equipment. *N.J. Stat. §54:32B et seq; A.B. 3339 (2010).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers of cogeneration facility equipment.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase cogeneration facility equipment. Cogeneration facility is a facility the primary purpose of which is the sequential production of electricity and steam or other forms of useful energy which are used for industrial or commercial heating or cooling purposes and which is designated by the Federal Energy Regulatory Commission, or its successor, as a qualifying facility per the Public Utility Regulatory Policies Act of 1978.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the sales tax due.

- E. INCENTIVE LIMITS
- F. INCENTIVE TIMEFRAME
- G. MISCELLANEOUS

34.05 New Jersey state sales tax exemption for zero emissions vehicles

A. GENERAL DESCRIPTION. New Jersey provides a sales tax exemption in the amount of 100% of the tax on zero emissions vehicles. N.J. Stat. §54:32B-8.55; Sales Tax Exemption-Zero Emission Vehicles, 09/08/2016; Notice of Motor Vehicles that Qualify as Zero Emission Vehicles for the 2017 Model Year; Notice of Motor Vehicles that Qualify as Zero Emission Vehicles (ZEVs) for the 2016 Model Year.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of zero emissions vehicles.

C. QUALIFYING ACTIVITY. Taxpayer must purchase zero emissions vehicles. A zero emissions vehicle is a vehicle certified as a zero emission vehicle pursuant to the California Air Resources Board zero emission vehicle standards for the applicable model year, but shall not include any other type of vehicle that may be delivered by a manufacturer for sale or lease to satisfy the zero emission vehicle requirement established by the California Air Resources Board in lieu of a vehicle that qualifies as a pure zero emission vehicle.

1. Zero emissions vehicles must be certified by the NJ Commissioner of Environmental Protection.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

- E. INCENTIVE LIMITS
- F. INCENTIVE TIMEFRAME
- G. MISCELLANEOUS

34.06 New Jersey state income tax credit for wind energy facilities

A. GENERAL DESCRIPTION. New Jersey provides an income tax credit over 10 years in the amount of 100% of its capital investment in a qualified offshore wind project. N.J. Rev. Stat. §54:209.4. S.B. 2036 (2010); A.B. 3723 (2018); N.J. Admin. Code § 19:31-20.1 et seq.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer investors making a qualifying investment in a qualified offshore wind project.

C. QUALIFYING ACTIVITY. Taxpayer must make an investment in a qualified offshore wind project. Qualified offshore wind project is a wind turbine electricity generation facility in the Atlantic Ocean and connected to the electric transmission system in this State, and includes the associated transmission-related interconnection facilities and equipment.

1. Qualified offshore wind project must be certified by the NJ Economic Development Authority.
2. Qualified offshore wind project must have a capital investment of at least \$50 million. Tenants of the qualified offshore wind project must have a capital investments of at least \$17.5 million.
3. Qualified offshore wind project must employ at least 300 new, full-time employees.
4. Qualified wind energy facility is any building, complex of buildings, or structural components of buildings, including water access infrastructure, and all machinery and equipment used in the manufacturing, assembly, development or administration of component parts that support the development and operation of a qualified offshore wind project, or other wind energy project as determined by the authority, and that are located in a wind energy zone.
5. Wind energy zone is the South Jersey Port District established pursuant to "The South Jersey Port Corporation Act," P.L.1968, c.60 (C.12:11A-1 et seq.).

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the capital investment.

1. Qualifying soft costs may not exceed 20% of all capital investment.

E. INCENTIVE LIMITS. The maximum statewide tax credit amount is \$100 million.

F. INCENTIVE TIMEFRAME. The tax credit is taken over a 5-year period. The tax credit expires August 1, 2024.

G. MISCELLANEOUS.

35. New Mexico State Tax Incentives for Renewable Energy and Energy Efficiency

35.01 New Mexico state income tax credit for renewable energy production

A. GENERAL DESCRIPTION. New Mexico provides an income tax credit in amounts ranging from \$0.010-\$0.027/kWh of renewable energy production. *N.M. Stat. §7-2A-19; N.M. Admin. Code §3.13.19; N.M. Taxation and Revenue Department Decision and Order No. 17-09.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations or individuals owning and operating renewable energy production facilities.

1. Taxpayer must be certified by the NM Environment Department.
2. Taxpayer allocates owning at least 5% interest in a qualifying generating facility may be allocated the right to claim the tax credit without regard to the Taxpayer's relative interest in the qualifying generating facility if the business entity making the allocation is taxed as a partnership and provides notice to the NM Environment Department of the allocation and the Taxpayer's interest in the qualifying generating.

C. QUALIFYING ACTIVITY. Taxpayer must own and operate a renewable energy production facility. A renewable energy production facility is a facility with at least 1 megawatt generating capacity located in New Mexico that produces electricity using a qualifying energy resource and sells that electricity to an unrelated person. Qualifying energy resource is a resource that generates electrical energy by means of a fluidized bed technology or similar low-emissions technology or a zero-emissions generation technology that has substantial long-term production potential and that uses solar light; solar heat; wind; or biomass.

D. INCENTIVE AMOUNTS. For wind and biomass facilities, the tax credit amount is \$0.010/kWh over 10 years. For solar facilities, the tax credit amount is \$0.027/kWh annual average over 10 years.

E. INCENTIVE LIMITS. The maximum cumulative tax credit amount is the tax credit for 2 million MWh plus an additional 500,000 MWh for solar electric. The maximum tax credit amount for wind and biomass is the tax credit for 400,000 MWh annually for 10 years. The maximum tax credit amount for solar electric is the tax credit for 200,000 MWh annually for 10 years.

F. INCENTIVE TIMEFRAME. The tax credit period is 10 years. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

35.02 New Mexico state income tax credit for alternative energy product manufacturing

A. GENERAL DESCRIPTION. New Mexico provides an income tax credit in the amount of 5% of the cost of alternative energy product manufacturing. *N.M. Stat. §7-9J-1 et seq.; N.M. Admin. Code §3.13.7.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer manufacturers of alternative energy products and components. Taxpayers may use the tax credit against the combined tax liability, which is the total liability for the reporting period for the gross receipts, compensating tax, and withholding tax.

1. Taxpayer must be certified by the NM Taxation and Revenue Department.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture alternative energy products and components. Alternative energy products and components include renewable energy systems, fuel cell systems, and electric and hybrid-electric vehicles. A renewable energy system is a system using only renewable energy to produce hydrogen or to generate electricity, including related cogeneration systems that create mechanical energy or that produce heat or steam for space or water heating and agricultural or small industrial processes and includes: (1) photovoltaic energy systems; (2) solar-thermal energy systems; (3) biomass energy systems; (4) wind energy

systems; (5) hydrogen production systems; or (6) battery cell energy systems.

1. Qualifying manufacturing must employ a number of full-time employees equal to 1 full-time employee in addition to the number of full-time employees employed 1 year prior to the day on which Taxpayer applies for the tax credit for every: (a) \$500,000, or a portion of that amount, of qualifying expenditures claimed by Taxpayer in a taxable year in the same claim, up to a value of \$30 million; and (b) \$1 million, or a portion of that amount, in value of qualifying expenditures over \$30 million claimed by Taxpayer in a taxable year in the same claim.

D. INCENTIVE AMOUNTS. The tax credit amount is 5% of the cost of alternative energy products and components.

1. The cost of alternative energy products and components include parts, assembly of parts, materials, ingredients or supplies that are incorporated directly into end-use products.

2. The tax credit amount must be approved by the NM Taxation and Revenue Department.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS. The tax credit may be recaptured if Taxpayer or a successor in the business of Taxpayer ceases operations at a facility in New Mexico for at least 180 consecutive days within a 2-year period after Taxpayer has claimed an alternative energy product manufacturers tax credit.

35.03 New Mexico state property tax financing option for renewable-energy technologies

A. GENERAL DESCRIPTION. New Mexico provides a property tax financing option for municipalities for renewable-energy technologies. *N.M. Stat. §5-18-1 et seq.*; *S.B. 647 (2009)*; *H.B. 233 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing renewable energy improvement on residential or commercial property.

C. QUALIFYING ACTIVITY. Taxpayer must finance renewable energy improvements. A renewable energy improvement is a photovoltaic, solar thermal, geothermal or wind energy system permanently installed on real property.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS. The maximum tax financing amount is 40% of the assessed value of the property.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS. Solar energy system installations are excluded from the definition of physical improvements that would trigger a revaluation of a property.

35.04 New Mexico state gross receipts tax deduction for sales and installation of advanced energy systems

A. GENERAL DESCRIPTION. New Mexico provides a gross receipts tax deduction in the amount of 100% of the tax on sales and installation of advanced energy systems. *N.M. Stat. §7-9-112*; *N.M. Stat. §7-9-79.3*; *N.M. Admin. Code §3.2.247. H.B.261 (2010)*.

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayers selling or installing advanced energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must sell or install advanced energy systems. Advanced energy system generating facilities include: (a) a solar thermal electric generating facility and associated renewable energy storage facility; (b) a solar photovoltaic electric generating facility and associated renewable energy storage facility; (c) a geothermal electric generating facility; (d) a recycled energy project; and (e) a new or re-powered coal-based electric generating facility and an associated coal gasification facility.

1. Qualifying solar photovoltaic and geothermal electric generating facilities must have a nameplate capacity of at least 1 megawatt.

2. Qualifying generating facilities must not exceed 700 net megawatts name-plate capacity.

3. Qualifying generating facilities must emit the lesser of: (1) what is achievable with the best available control technology; or (2) 35 thousandths pound per million British thermal units of sulfur dioxide, 25 thousandths pound per million British thermal units of oxides of nitrogen and 1 hundredth pound per million British thermal units of total particulates in the flue gas.

4. Qualifying generating facilities must remove the greater of: (1) what is achievable with the best available control technology; or (2) 90% of the mercury from the input fuel.

5. Qualifying generating facilities must capture and sequester or control carbon dioxide emissions so that by the later of January 1, 2017 or 18 months after the commercial operation date, no more than 1,100 pounds per megawatt-hour of carbon dioxide is emitted into the atmosphere.

D. INCENTIVE AMOUNTS. The tax credit deduction is 100% of gross receipts.

E. INCENTIVE LIMITS. The maximum cumulative tax deduction amount is \$60 million per qualifying generating facility.

F. INCENTIVE TIMEFRAME. The tax deduction period is 10 years. The tax deduction expires June 30, 2017.

G. MISCELLANEOUS.

35.05 New Mexico state income tax credit for solar thermal energy or photovoltaic systems

A. GENERAL DESCRIPTION. New Mexico provides an income tax credit in the amount of 10% of the cost of a solar thermal energy or a photovoltaic system in a residence, business or agricultural enterprise. *N.M. Stat. §7-2-18.14; N.M. Admin. Code §3.3.28.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers and installers of solar thermal energy or photovoltaic systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install solar thermal energy or a photovoltaic system in a residence, business or agricultural enterprise. A solar thermal system is an energy system that collects or absorbs solar energy for conversion into heat for space heating, space cooling or water heating. A photovoltaic system is an energy system that collects or absorbs sunlight for conversion into electricity.

1. Qualifying systems must be certified by the NM Energy, Minerals and Natural Resources Department.

2. Qualifying systems must include a minimum two year warranty on parts, equipment and labor.

3. Qualifying systems do not include a heating system for a swimming pool or a hot tub or a commercial or industrial photovoltaic system on a farm or ranch that is not connected to an electric utility transmission or distribution system.

4. Qualifying residence, business or agricultural enterprise may be rented to another entity.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the cost of a solar thermal energy or a photovoltaic system.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$9,000. The statewide maximum annual credit amount is \$2 million for solar thermal systems and \$3 million for photovoltaic systems.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS.

35.06 New Mexico state gross receipts tax deduction for wind energy generation equipment

A. GENERAL DESCRIPTION. New Mexico provides a gross receipts tax deduction in the amount of 100% of the tax on wind energy generation

equipment sold to government units. *N.M. Stat. §7-9-54.3*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayers selling wind energy generation equipment sold to government units.

C. QUALIFYING ACTIVITY. Taxpayer must sell wind energy generation equipment to government units. Wind energy generation equipment includes wind generation nacelles, rotors or related equipment.

1. Government units include the United States or New Mexico or any governmental unit or subdivision, agency, department or instrumentality thereof.

D. INCENTIVE AMOUNTS. The tax deduction amount is 100% of gross receipts.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

35.07 New Mexico state income tax credit for geothermal systems

A. GENERAL DESCRIPTION. New Mexico provides an income tax credit in the amount of 30% of the purchase and installation costs of geothermal systems. *N.M. Stat. §7-2-18.24; N.M. Stat. Ann. §7-2A-24; Regs. §§3.4.19.1 to -.14.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasing and installing geothermal systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install geothermal systems. Geothermal systems are ground-coupled heat pumps. Geothermal ground-coupled heat pump is a reversible refrigerator device that provides space heating, space cooling, domestic hot water, processed hot water, processed chilled water or any other application where hot air, cool air, hot water or chilled water is required and that utilizes ground water or water circulating through pipes buried in the ground as a condenser in the cooling mode and an evaporator in the heating mode.

1. Geothermal systems must
 - (i). be made of new equipment, components, and materials;
 - (ii). have a minimum two-year warranty;
 - (iii). be a complete system; and
 - (iv). have a minimum one-ton system size.
2. Geothermal systems must be certified by the NV Energy, Minerals, and National Resources Department. Taxpayer must provide the following information
 - (i). a copy of the most recent property tax bill for the property where the system is located,
 - (ii). a copy of the invoice of itemized equipment and labor costs,
 - (iii). a copy of the system's design schematic and technical specifications,
 - (iv). a photograph of the system after installation is completed, and
 - (v). information about whether the system was installed using vertical or horizontal boreholes.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the purchase and installation costs of the geothermal system.

E. INCENTIVE LIMITS. The annual maximum tax credit amount is \$9,000. The statewide annual aggregate tax credit amount is \$2 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 30, 2020. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS.

35.08 New Mexico state use tax deduction for biomass equipment and materials

A. GENERAL DESCRIPTION. New Mexico provides a use tax deduction in the amount of 100% of the tax on biomass equipment and materials. *N.M. Stat. §7-9-98.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayers purchasing biomass equipment and materials.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase biomass equipment or biomass materials used for the processing of biopower, biofuels or biobased products. Biomass material is organic material that is available on a renewable or recurring basis, including: (a) forest-related materials, including mill residues, logging residues, forest thinnings, slash, brush, low commercial value materials or undesirable species, salt cedar and other phreatophyte or woody vegetation removed from river basins or watersheds and woody material harvested for the purpose of forest fire fuel reduction or forest health and watershed improvement; (b) agricultural-related materials, including orchard trees, vineyard, grain or crop residues, including straws and stover, aquatic plants and agricultural processed co-products and waste products, including fats, oils, greases, whey and lactose; (c) animal waste, including manure and slaughterhouse and other processing waste; (d) solid woody waste materials, including landscape or right-of-way tree trimmings, range land maintenance residues, waste pallets, crates and manufacturing, construction and demolition wood wastes, excluding pressure-treated, chemically treated or painted wood wastes and wood contaminated with plastic; (e) crops and trees planted for the purpose of being used to produce energy; (f) landfill gas, wastewater treatment gas and biosolids, including organic waste byproducts generated during the wastewater treatment process; and (g) segregated municipal solid waste, excluding tires and medical and hazardous waste.

D. **INCENTIVE AMOUNTS.** The tax deduction amount is 100% of the use tax paid.

E. **INCENTIVE LIMITS**

F. **INCENTIVE TIMEFRAME**

G. **MISCELLANEOUS.**

35.09 New Mexico state income tax credit for biodiesel blending facilities

A. **GENERAL DESCRIPTION.** New Mexico provides an income tax credit in the amount of 30% of the cost of biodiesel blending facilities. *N.M. Stat. §7-9-79.2; N.M. Admin. Code §3.13.21.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayers installing biodiesel blending equipment in property owned by the Taxpayer.

1. Taxpayer must be operator of a refinery in New Mexico, blends special fuel in New Mexico, or owns special fuel stored at a pipeline terminal in New Mexico.

2. Taxpayer must be certified by the NM Energy, Minerals and Revenue Department.

C. **QUALIFYING ACTIVITY.** Taxpayer must install biodiesel blending equipment in property owned by Taxpayer. Biodiesel blending equipment is equipment necessary for the process of blending biodiesel with diesel fuel to produce blended biodiesel fuel. Biodiesel is renewable, biodegradable, monoalkyl ester combustible liquid fuel that is derived from agricultural plant oils or animal fats and that meets ASTM D 6751 standard specification for biodiesel B100 blend stock for distillate fuels.

1. Taxpayer must complete at least 180 days of availability of the facility within the first 365 days after the issuance of the certificate of eligibility.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 30% of the cost of biodiesel blending facilities.

E. **INCENTIVE LIMITS.** The maximum tax credit amount is \$50,000 per facility. The statewide maximum cumulative tax credit amount is \$1 million.

F. **INCENTIVE TIMEFRAME.** Taxpayer must apply for the tax credit no later than 90 days before the end of the year for which Taxpayer seeks the tax credit. Unused tax credit may be carried forward 4 years.

G. **MISCELLANEOUS.**

35.10 New Mexico state income tax credit for sustainable buildings

A. **GENERAL DESCRIPTION.** New Mexico provides an income tax credit in amounts ranging from \$0.30-9.00/SF of sustainable buildings. *N.M. Stat.*

§7-2A-21 and §7-2-18.29; N.M. Admin. Code §3.4.17.7; N.M. Admin. Code §3.3.22.1 et seq.; S.B. 14 (2013); S.B. 279 (2015); New Mexico Bulletin B-300.15, 05/27/2016; H.B. 15 (2021); Bulletin B-300.15, N.M. Tax. and Rev. Dept., 06/01/2022.

B. ELIGIBLE TAXPAYERS. The tax credit is available to taxpayer corporations owning LEED certified commercial and residential buildings.

1. Taxpayer must obtain a certificate of eligibility from the NV Energy, Minerals and Natural Resources Department after the building project has been completed.
2. Taxpayer may transfer the entire tax credit to other taxpayers. The parties to the transfer transaction must notify the NV Energy, Minerals and Natural Resources Department of the sale, exchange or transfer within 10 days of the sale, exchange or transfer.
3. Taxpayer pass-through entities must allocate the tax credit among their owners according to their respective ownership percentages.
4. For residential projects, Taxpayer may be a building owner who is: the owner of the sustainable residential building at the time the certification level for the building is awarded; or the subsequent purchaser of a sustainable residential building with respect to which no tax credit has been previously claimed.

C. QUALIFYING ACTIVITY. Taxpayer must own LEED or Build Green New Mexico certified sustainable residential and commercial buildings.

1. Sustainable commercial building is a multifamily dwelling unit, as registered and certified under the LEED-H or Build Green New Mexico rating system, that is certified by the US Green Building Council as LEED-H silver or higher or by Build Green New Mexico as silver or higher and has achieved a home energy rating system index of sixty or lower as developed by the residential energy services network or a building that has been registered and certified under the LEED-NC, LEED-EB, LEED-CS or LEED-CI rating system and that: (1) is certified by the US Green Building Council at LEED-Silver or higher; (2)

achieves any prerequisite for and at least one point related to commissioning under LEED "energy and atmosphere", if included in the applicable rating system; and (3) has reduced energy consumption, as follows: (a) a 60% energy reduction will be required based on the national average for that building type as published by the US Department of Energy; and (b) is substantiated by the US Environmental Protection Agency target finder energy performance results form, dated no sooner than the schematic design phase of development.

2. Sustainable residential building is:
 - (i). a building used as a single-family residence as registered and certified under the Build Green New Mexico or LEED-H rating systems that: (1) is certified by the US Green Building Council as LEED-H silver or higher or by Build Green New Mexico as gold or higher; and (2) has achieved a home energy rating system index of 60 or lower as developed by the residential energy services network; or
 - (ii). manufactured housing as defined by the US Department of Housing and Urban Development that is ENERGY STAR-qualifying by the US Environmental Protection Agency.
3. Sustainable buildings qualifying for Additional Criteria Qualified Tax Credit must satisfy additional criteria:
 - (i). Fully Electric Building
 - (ii). Zero Carbon, Energy, Waste or Water Certified

4. Renovated large commercial buildings must be originally built at least 10 years prior to the renovation, have 20,000 SF or more of space in which temperature is controlled, be broadband ready and electric vehicle ready, and the renovation must reduce total energy and power costs by 50 percent when compared to the most current energy standard for buildings except low-rise residential buildings, as developed by the ASHRAE.

D. INCENTIVE AMOUNTS. The tax credit amount is based on LEED rating level and qualifying occupied square footage. Qualifying occupied square footage is the occupied spaces of the

building as determined by the US Green Building Council for those buildings obtaining LEED certification; the administrators of the Guild Green New Mexico rating system for those homes obtaining Build Green New Mexico certification; and the US Environmental Protection Agency for ENERGY STAR-certified manufactured homes.

1. Prior to December 31, 2024 the following tax credit amounts apply: For commercial LEED-NC Silver, \$3.50/SF for the first 10,000 SF, \$1.75/SF for the next 40,000 SF, and \$0.70/SF over 50,000 SF. For commercial LEED-NC Gold, \$4.75/SF for the first 10,000 SF, \$2.00/SF for the next 40,000 SF, and \$1.00/SF over 50,000 SF. For commercial LEED-NC Platinum, \$6.25/SF for the first 10,000 SF, \$3.25/SF for the next 40,000 SF, and \$2.00/SF over 50,000 SF. For commercial LEED-EB/CS Silver, \$2.50/SF for the first 10,000 SF, \$1.25/SF for the next 40,000 SF, and \$0.50/SF over 50,000 SF. For commercial LEED-EB/CS Gold, \$3.35/SF for the first 10,000 SF, \$1.40/SF for the next 40,000 SF, and \$0.70/SF over 50,000 SF. For commercial LEED-EB/CS Platinum, \$4.40/SF for the first 10,000 SF, \$2.30/SF for the next 40,000 SF, and \$1.40/SF over 50,000 SF. For commercial LEED-CI Silver, \$1.40/SF for the first 10,000 SF, \$0.70/SF for the next 40,000 SF, and \$0.30/SF over 50,000 SF. For commercial LEED-CI Gold, \$1.90/SF for the first 10,000 SF, \$0.80/SF for the next 40,000 SF, and \$0.40/SF over 50,000 SF. For commercial LEED-CI Platinum, \$2.50/SF for the first 10,000 SF, \$1.30/SF for the next 40,000 SF, and \$0.80/SF over 50,000 SF.
2. Prior to December 31, 2024 the following tax credit amounts apply: For residential LEED-H Silver or Build Green NM Silver, \$3.00/SF for the first 2,000 SF. For residential LEED-H Gold or Build Green NM Gold, \$4.50/SF for the first 2,000 SF. For residential LEED-H Platinum or Build Green NM Emerald, \$6.50/SF for the first 2,000 SF.
3. Prior to December 31, 2024 the following tax credit amounts apply: For Energy Star manufactured housing, \$3.00/SF for the first 2,000 SF.
4. After January 1, 2025 and prior to December 31, 2029 the following tax credit amounts apply, plus the Additional Criteria

- Qualified Tax Credit: For commercial LEED-NC Gold, \$3.00/SF for the first 10,000 SF, \$1.00/SF for the next 40,000 SF, and \$0.25/SF over 50,000 SF. For commercial LEED-NC Platinum, \$5.25/SF for the first 10,000 SF, \$2.25/SF for the next 40,000 SF, and \$1.00/SF over 50,000 SF. For commercial LEED-EB/CS Gold, \$2.00/SF for the first 10,000 SF, \$1.00/SF for the next 40,000 SF, and \$0.25/SF over 50,000 SF. For commercial LEED-EB/CS Platinum, \$3.40/SF for the first 10,000 SF, \$1.30/SF for the next 40,000 SF, and \$0.35/SF over 50,000 SF. For commercial LEED-CI Gold, \$0.90/SF for the first 10,000 SF, \$0.40/SF for the next 40,000 SF, and \$0.10/SF over 50,000 SF. For commercial LEED-CI Platinum, \$1.50/SF for the first 10,000 SF, \$0.40/SF for the next 40,000 SF, and \$0.30/SF over 50,000 SF.
5. After January 1, 2025 and prior to December 31, 2029 the following tax credit amounts apply, plus the Additional Criteria Qualified Tax Credit: For residential LEED-H Gold or Build Green NM Gold, \$3.80/SF for the first 2,000 SF. For residential LEED-H Platinum or Build Green NM Emerald, \$5.50/SF for the first 2,000 SF.
 6. After January 1, 2025 and prior to December 31, 2029 the following tax credit amounts apply: For Energy Star manufactured housing, \$2.00/SF for the first 2,000 SF.
 7. After January 1, 2025 and prior to December 31, 2029 the Additional Criteria Qualified Tax Credit amount for commercial building is: For Fully Electric Buildings \$1.00/SF for the first 50,000 SF and \$0.50/SF over 50,000 SF. For Zero Carbon, Energy, Waste or Water Certified Buildings \$0.25/SF for the first 50,000 SF and \$0.10/SF over 50,000 SF.
 8. After January 1, 2025 and prior to December 31, 2029 the Additional Criteria Qualified Tax Credit amount for residential building is: For Fully Electric Buildings \$1.00/SF for the first 2,000 SF. For Zero Carbon, Energy, Waste or Water Certified Buildings \$0.25/SF for the first 2,000 SF.
 9. After January 1, 2025 and prior to December 31, 2029 for renovated large commercial building the tax credit amount is \$2.25/SF.

10. After January 1, 2025 and prior to December 31, 2029 the following tax credit amounts apply for renovated commercial buildings of less than 20,000 SF based on the product installed:

- (i). Energy Star Air Source Heat Pump \$1,000 (\$2,000 for Affordable Housing)
- (ii). Energy Star Ground Source Heat Pump \$1,000 (\$2,000 for Affordable Housing)
- (iii). Energy Star Windows and Doors 100% of product 50% of product cost up to cost up to \$500 (\$1,000 for Affordable Housing)
- (iv). Insulation Improvements That Meet Rules of the Energy, Minerals and Natural Resources Department 100% of product 50% of product cost up to cost up to \$1,000 (\$2,000 for Affordable Housing)
- (v). Energy Star Heat Pump Water Heater \$350 (\$700 for Affordable Housing)
- (vi). Electric Vehicle Ready 100% of product 50% of product cost up to cost up to \$1,500 (\$3,000 for Affordable Housing)

11. After January 1, 2025 and prior to December 31, 2029 the following tax credit amounts apply for renovated residential buildings based on the product installed:

- (i). Energy Star Air Source Heat Pump \$1,000 (\$2,000 for Affordable Housing or Low Income Taxpayer)
- (ii). Energy Star Ground Source Heat Pump \$1,000 (\$2,000 for Affordable Housing or Low Income Taxpayer)
- (iii). Energy Star Windows and Doors 100% of product 50% of product cost up to cost up to \$500 (\$1,000 for Affordable Housing or Low Income Taxpayer)
- (iv). Insulation Improvements That Meet Rules of the Energy, Minerals and Natural Resources Department 100% of product 50% of product cost up to cost up to \$1,000 (\$2,000 for Affordable Housing or Low Income Taxpayer)
- (v). Energy Star Heat Pump Water Heater \$350 (\$700 for Affordable Housing or Low Income Taxpayer)

- (vi). Electric Vehicle Ready 100% of product 50% of product cost up to cost up to \$500 (\$1,000 for Affordable Housing or Low Income Taxpayer)

E. INCENTIVE LIMITS. The maximum tax credit amount is the 2015 tax credit for qualifying occupied square footage for commercial buildings is 500,000 SF. The maximum statewide annual 2015 tax credit amounts are \$1,250,000 for commercial buildings and \$3,375,000 for residential buildings. The maximum tax credit amount is the 2021 tax credit for qualifying occupied square footage for new commercial buildings is 200,000 SF. The maximum tax credit amount is the 2021 tax credit for renovated commercial buildings is \$150,000. The maximum statewide annual 2021 tax credit amounts are \$1,000,000 for new commercial buildings, \$2,000,000 for new residential buildings that are not manufactured housing, \$250,000 for new residential buildings that are manufactured housing, \$1,000,000 for renovated large commercial buildings and \$2,900,000 for energy-conserving product installation in renovated commercial buildings and renovated residential buildings. If the maximum annual tax credit for residential buildings has been met, the Department may issue certificates of eligibility under the maximum annual tax credit amount for commercial buildings.

1. The maximum statewide annual tax credit amount for manufactured housing is \$375,000.

F. INCENTIVE TIMEFRAME. The 2015 tax credit expires December 31, 2024. In order to qualify for the 2015 credit, the sustainable building must be completed before April 1, 2023. The 2021 tax credit expires December 31, 2029. In order to qualify for the 2021 credit, the sustainable building must be completed on or after April 1, 2023. Taxpayer may apply for a certificate of eligibility after the construction, installation or renovation of the sustainable building is complete. If the tax credit amount is less than \$100,000, the \$25,000 of the tax credit can be applied to Taxpayer's income tax in that year, with the remaining tax credits applied over the next 3 years. If the tax credit is more than \$100,000 the tax credit will be applied in increments of 25% over the next 4

years. Unused tax credit may be carried forward 7 years.

G. MISCELLANEOUS. Qualifying solar thermal system or a photovoltaic system may not also be claimed under the solar market development tax credit of N.M. Stat. §7-2-18.14.

35.11 New Mexico state income tax credit for agricultural biomass fuel

A. GENERAL DESCRIPTION. New Mexico provides an income tax credit in the amount of \$5 per ton of agricultural biomass provided by dairy or feedlot owners. *N.M. Stat. Ann. §7-2A-26; N.M. Stat. Ann. §7-2-18.26; H.B. 171 (2010); H.B. 146 (2020).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers dairy or feedlot owners providing agricultural biomass.

1. Taxpayer may transfer the tax credit to other taxpayers. The parties to the transfer transaction must notify the NM Energy, Minerals and Natural Resources Department of the sale, exchange or transfer within 10 days of the sale, exchange or transfer.

2. The amount of tax credit allowed with respect to a pass-through entity must be determined at the pass-through entity level. The tax credit must be allocated to corporate partners, shareholders, or members in proportion to their respective interests in the pass-through entity.

C. QUALIFYING ACTIVITY. Taxpayer must provide agricultural biomass for use in generating electricity or making biocrude or other liquid or gaseous fuel for commercial use. Agricultural biomass is wet manure from either a dairy or feedlot commercial operation that meets specifications established by the NM Energy, Minerals and Natural Resources Department.

D. INCENTIVE AMOUNTS. The tax credit amount is \$5 per ton of agricultural biomass provided.

E. INCENTIVE LIMITS. The statewide annual maximum tax credit amount is \$5 million.

F. INCENTIVE TIMEFRAME. The tax credit may be carried forward 4 years. The tax credit expires December 31, 2029.

G. MISCELLANEOUS.

35.12 New Mexico state income tax credit for new solar market development

A. GENERAL DESCRIPTION. New Mexico provides an income tax credit in the amount of 10% of the cost of solar systems. *S.B. 29 (2020); N.M. Stat. Ann. §7-2-18.31; N.M. Admin. Code §3.3.14.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers owners of solar systems.

1. Taxpayer must be certified by the NM Energy, Minerals and Revenue Department.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install residential, business (commercial or industrial) or agricultural solar thermal system or a solar photovoltaic system. Photovoltaic system is an energy system that collects or absorbs sunlight for conversion into electricity. Solar thermal system is an energy system that collects or absorbs solar energy for conversion into heat for the purposes of space heating, space cooling or water heating.

1. The energy system must be certified by the NM Energy, Minerals and Revenue Department.

2. Taxpayer must own the residence, business, or agriculture enterprise on which the solar energy system is located.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the of the cost of equipment and installation of solar systems.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$6,000. The statewide annual maximum tax credit amount is \$12 million.

F. INCENTIVE TIMEFRAME. The tax credit is refundable. The tax credit expires December 31, 2031.

G. MISCELLANEOUS.

36. New York State Tax Incentives for Renewable Energy and Energy Efficiency

36.01 New York state property tax abatement for photovoltaic equipment expenditures and electric energy storage equipment installed in New York City

A. GENERAL DESCRIPTION. New York provides a property tax abatement for 4 years in amount of 5% of the cost of photovoltaic systems or 10% electric energy storage equipment made on buildings located in New York City. *NY CLS RPTL §499-aaa et seq.; S.B. 7464 (2014); A.B. 7110 (2016); A.B. 10150 (2018); A.B. 10410 (2018).*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of eligible buildings in New York City with photovoltaic systems or electric energy storage equipment installed.

1. Taxpayer must be certified by the NYC Department of Finance and the NYC Department of Buildings.

C. QUALIFYING ACTIVITY. Taxpayer must own eligible buildings in New York City with photovoltaic systems installed.

1. Eligible buildings include all real property except utility real property.
2. Electric energy storage equipment is a set of technologies capable of storing electric energy and releasing that energy as electric power at a later time. Electric energy storage technologies may store energy as potential, kinetic, chemical or thermal energy that can be released as electric power, and include, but are not limited to, various types of batteries, flywheels, electrochemical capacitors, compressed air storage and thermal storage devices.

D. INCENTIVE AMOUNTS. The annual tax credit amount is 5% of the cost for photovoltaic systems and 10% of the costs of electric energy storage equipment.

1. Qualifying costs include reasonable expenditures for materials and labor associated with planning, designing, and installing the system.
2. Qualifying costs do not include interest or finance charges.
3. Qualifying costs include costs funded from federal, state or local tax credits, tax abatements, tax exemptions or tax rebates.
4. Qualifying costs do not include costs funded from federal, state, or local grants.

E. INCENTIVE LIMITS. The maximum annual tax abatement is \$62,500 or the amount of real property taxes owed during the year. Unused balances may not be carried forward to subsequent years.

F. INCENTIVE TIMEFRAME. The tax credit period is 4 years. The tax abatement expires December 31, 2021. Taxpayer must apply for the tax abatement by March 15 in order to be eligible for the tax credit during the year the application is submitted.

G. MISCELLANEOUS. Taxpayer may claim the property tax exemption on the value added by solar, wind, and farm-based biogas energy systems per NY CLS Real Property Tax, Article 4 §487.

36.02 New York state property tax exemption for solar, wind & biomass energy systems

A. GENERAL DESCRIPTION. New York provides a property tax exemption in the amount of 100% of the tax on solar, wind and biomass energy systems. *NY CLS Real Property Tax, Article 4 §487, §483-e; A.B. 10875 (2010); S.B. 7026A (2014); A.B. 9005 (2016).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar, wind, anaerobic digestion and farm-waste energy equipment systems.

1. The tax exemption may be opted out of by the municipality.
2. The tax exemption for anaerobic digestion systems must be certified by the NY Commissioner of Tax and Finance.

C. **QUALIFYING ACTIVITY.** Taxpayer must own solar, wind, micro-hydroelectric, fuel cell electric generating, micro-combined heat and power generating equipment system, electric energy storage, anaerobic digestion or farm-waste energy equipment system. Qualifying farm-waste energy systems are systems and related equipment that generate electric energy from biogas produced by the anaerobic digestion of agricultural waste, such as livestock manure, farming waste and food processing wastes. Qualifying solar energy equipment systems include passive solar heating systems such as mass wall and direct gain systems.

1. Qualifying systems must be certified by the NY State Energy Research and Development Authority.
2. Qualifying farm-waste energy systems must have a maximum rated system capacity of 400 kilowatts (kW).
3. Qualifying systems includes insulated glazing or insulation to the extent that such materials exceed the energy efficiency standards required by law.
4. Qualifying systems do not include pipes, controls, insulation or other equipment which are part of the normal heating, cooling, or insulation system of a building.
5. Qualifying anaerobic digestion systems include structures permanently affixed to land for the purpose of anaerobic digestion of agricultural materials, including structures necessary for the storage and handling of the agricultural materials that are part of the digestion process, together with any equipment necessary for producing, collecting, storing, cleaning and converting biogas into forms of energy and generation, transmission, transporting, use of and/or the sale of biogas or energy on-site, off-site, and/or pursuant to an interconnection agreement with a utility. Agricultural materials include livestock manure, farming wastes and food residuals and other organic wastes associated with food production or consumption with at least fifty percent by weight of its feedstock on an annual basis being livestock manure, farming wastes and crops grown specifically for use as anaerobic digestion feedstock. Food residuals include food scraps, food processing residue, and

related soiled or unrecyclable paper used in food packaging, preparation or cleanup.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the property tax due.

E. **INCENTIVE LIMITS.** The tax exemption applies only to general municipal and school district taxes and may not be applied to special assessments or special ad valorem levies.

F. **INCENTIVE TIMEFRAME.** The tax exemption period is 15 years. The tax exemption expires December 31, 2025.

G. **MISCELLANEOUS.** Taxpayer may be required by municipality to enter into a contract for payments in lieu of taxes, not to exceed the amount payable without the tax exemption.

36.03 New York state franchise tax credit for alternative fuel vehicle refueling and electric vehicle recharging property

A. **GENERAL DESCRIPTION.** New York provides a franchise tax credit in the amount of 50% of the cost of alternative fuel vehicle refueling and electric vehicle recharging property. *N.Y. Tax Law §187-b; §210(24); New York Technical Service Bureau Memorandum TSB-M-06(3)C, 04/19/2006; A.B. 9710 (2010); A.B. 3009 (2015).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations placing alternative fuel vehicle refueling and electric vehicle recharging property in service. Taxpayer may elect to allow its affiliate to claim the tax credit.

C. **QUALIFYING ACTIVITY.** Taxpayer must place in service alternative fuel vehicle refueling property or electric vehicle recharging property. Alternative fuel vehicle refueling property is all of the equipment needed to dispense into a motorized vehicle any fuel at least 85% of the volume of which consists of one or more of the following: natural gas, liquefied natural gas, liquefied petroleum or hydrogen. Electric vehicle recharging property is all the equipment needed to convey electric power from the electric grid or

another power source to an onboard vehicle energy storage system.

1. Qualifying alternative fuel vehicle refueling property does not include refueling property relating to a qualifying hybrid vehicle.
2. Qualifying alternative fuel vehicle refueling property does not include property paid for from the proceeds of grants award before January 1, 2015, including grants from NYSERDA or NYPA.

D. INCENTIVE AMOUNTS. The tax credit amount is 50% of the cost of alternative fuel vehicle refueling property.

E. INCENTIVE LIMITS. The maximum amount of tax credit is \$5,000.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2017.

G. MISCELLANEOUS. The tax credit may be recaptured if, at any time before the end of its recovery period, the alternative fuel vehicle refueling property ceases to be qualifying. The alternative fuel vehicle refueling property ceases to be qualifying if: (1) the property no longer qualifies as property described in IRC §30C; (2) 50% or more of the use of the property in a tax year is other than in a trade or business in New York; or (3) the Taxpayer sells or disposes of the property and knows, or has reason to know, that the property will be used in a manner as described in (1) or (2). N.Y. Tax Law §210(24)(e).

1. Taxpayer may not claim the clean-fuel vehicle refueling property credit.

36.04 New York state property tax exemption for energy conservation improvements

A. GENERAL DESCRIPTION. New York provides a property tax exemption in the amount of 100% of the tax on qualifying energy-conservation improvements to one, two, three or four family homes. *NY CLS Real Property Tax Law §487-a; New York Technical Service No. TSB-M-06(4)C, 07/21/2006. NY ORPS Exemption Administration*

Manual - Part 1 Residential - Other Than Multiple Dwellings - Section 4.01 - RPTL Section 487-a.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of qualifying energy-conservation improvements to one, two, three or four family homes.

C. QUALIFYING ACTIVITY. Taxpayer must own qualifying energy-conservation improvements to one, two, three or four family homes. Qualifying energy-conservation improvements include insulation and other energy conservation measures such as caulking and weather-stripping of all exterior doors and windows; furnace efficiency modifications; furnace and boiler retrofits; furnace and boiler replacements, provided that such replacements meet minimum efficiency standards; heat pumps that meet minimum efficiency standards; clock thermostats; ceiling, attic, wall, foundation, air duct, heating pipe, and floor insulation; hot water heater insulation; storm and thermal windows and doors; solar and wind systems; load management devices and energy use meters, together with associated wiring.

1. Qualifying homes must qualify for financing under a home conservation plan under Article VII-A of the Public Service Law, or any conservation-related state or federal tax credit or deduction.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS. The tax exemption includes general municipal property taxes, school district taxes, and special ad valorem taxes, but does not apply to special assessments.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

36.05 New York state tax credit for clean heating fuel purchase

A. GENERAL DESCRIPTION. New York provides an income tax credit in the amount of \$0.01 per percent of biodiesel per gallon of biodiesel purchased and used for residential space heating

and water heating. *N.Y. Tax Law §210.39; NY CLS Tax, Article 22 §606 (mm). New York Technical Service Bureau Memorandum TSB-M-08(5)C, 05/29/2008; A.B. 9710 (2010); S.B. 6039 (2012); S.B. 5422 (2017).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations or individuals purchasing biodiesel or bioheating fuel used for residential space heating and water heating.

C. QUALIFYING ACTIVITY. Taxpayer must purchase biodiesel or bioheating fuel used for residential space heating and water heating. Biodiesel is fuel comprised exclusively of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100 (pure biodiesel), which meets the specifications of ASTM designation D 6751. Bioheating fuel is a fuel comprised of biodiesel or renewable hydrocarbon diesel blended with conventional home heating oil, which meets the specifications of the ASTM designation D 396 or D 975. The percentage of biodiesel included in the bioheating fuel is the number preceded by the letter "B" in the bioheating fuel designation. For example, bioheating fuel designated B5 contains 5% biodiesel, bioheating fuel designated B20 contains 20% biodiesel, etc.

1. Qualifying residential use is any use of a structure, or part of a structure, as a place of abode maintained by or for a person, whether or not owned by such person, on other than a temporary or transient basis. Residential use includes multi-family dwelling units such as multi-family homes, apartment buildings, condominiums, and cooperative apartments.
2. Qualifying residential use does not include part of a structure used as a hotel, motel, or similar space, except for those units used by the same occupant for at least 90 consecutive days.
3. Qualifying use in buildings with both residential and non-residential space and a common oil storage tank is eligible for a partial tax credit based on the percentage of square footage used for residential purposes.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.01/gallon for each percent of biodiesel blended with conventional home heating.

1. Taxpayer should have an invoice or bill that includes the date of purchase the number of gallons of bioheating fuel purchased, and the percentage of biodiesel included in the bioheating fuel.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$0.20/gallon purchased. The tax credit is refundable up to \$2 million.

F. INCENTIVE TIMEFRAME. Taxpayer must claim the tax credit for the tax year in which the qualifying bioheating fuel is purchased. Qualifying bioheating fuel is deemed purchased on the date of delivery, regardless of when payment occurs. The tax credit expires December 31, 2016.

G. MISCELLANEOUS.

36.06 New York state personal income tax credit for solar and fuel cell system equipment

A. GENERAL DESCRIPTION. New York provides an income tax credit in the amount of 25% of the cost of solar energy system equipment and 20% of the cost of fuel cell electric generating equipment. *NY CLS Tax, Article 22 §606 (g-1) and (g-2); NY CLS Tax, Article 22 §210.37; A.B. 9710 (2010); A.B. 00034B (2012); New York Technical Service Bureau Memorandum No. TSB-M-12(10)I, 12/06/2012; New York Advisory Opinion No. TSB-A-13(8)I, 09/09/2013; In the Matter of the Petition of Spencer, N.Y. Tax Appeals Tribunal, Dkt. No. 827275, 01/24/2019.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals installing solar and fuel cell system equipment at their principal residence.

1. Taxpayers installing in a principal residence shared by two or more taxpayers, may prorate the tax credit according to the percentage of the total costs contributed by each taxpayer.
2. Taxpayer condominium management associations or cooperative housing corporations may allow Taxpayer members or tenant-stockholders to claim a proportionate share of the total tax credit attributable to his or her principal residence.

3. Taxpayer lessors of qualifying solar energy system equipment under a written agreement that spans at least 10 years may claim the tax credit.

4. Taxpayer power purchasers generated by qualifying solar energy system equipment under a written agreement that spans at least 10 years may claim the tax credit.

C. QUALIFYING ACTIVITY. Taxpayer must install solar or fuel cell system equipment at their principal residence. Solar system equipment is an arrangement or combination of components utilizing solar radiation which produces energy designed to provide heating, cooling, hot water or electricity. Fuel cell system equipment is an on-site electricity generation system utilizing proton exchange membrane fuel cells.

1. Qualifying fuel cell system equipment must provide a maximum rated baseload capacity of 25 kW and must utilize proton exchange membrane (PEM) technology.

2. Qualifying solar system equipment must comply with the 10 kW capacity limit on residential, net-metered solar-energy systems (50 kW for condominiums and cooperative housing associations).

3. Qualifying systems do not include pool heating or other recreational applications.

4. Qualifying systems do not include geothermal systems.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of equipment and installation for solar system equipment and 20% of the cost of fuel cell system equipment.

1. Qualifying costs include expenditures for materials, labor costs properly allocable to on-site preparation, assembly and original installation, architectural and engineering services, and designs and plans directly related to the construction or installation of the qualifying equipment.

2. Qualifying costs do not include interest or other finance charges.

3. Qualifying costs do not include the cost of property financed by any federal, state or local grant received by the taxpayer and which was not included in the federal gross income of the taxpayer.

E. INCENTIVE LIMITS. The maximum tax credit amounts for each residence are \$5,000 for solar-energy systems and \$1,500 per generating unit for fuel cells.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

36.07 New York state sales tax exemption for residential and commercial solar-energy systems equipment

A. GENERAL DESCRIPTION. New York provides a sales tax exemption in the amount of 100% of the tax on residential and commercial solar-energy systems. *NY CLS Tax, Article 28 §1115 (ee) and (ii); N.Y. Tax Law §1210(a)(1) ; New York Department of Taxation & Finance Publication 718-S, 08/01/2008; New York Special Tax Department Notice ST-06-3, 02/01/2006; New York Department of Taxation & Finance Publication No. 718-CS, 02/01/2015; New York Sales Tax Bulletin TB-ST-775, 09/17/2012; A.B. 3009 (2015); New York Department of Taxation & Finance Publication No. 718, , 02/01/2018; (New York Advisory Opinion No. TSB-A-20(46)S, 10/27/2020.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of residential and commercial solar-energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase residential and commercial solar-energy systems or electricity generated by such equipment. Residential and commercial solar-energy systems are systems that utilize solar radiation to produce energy designed to provide heating, cooling, hot water and/or electricity.

1. Qualifying residential and commercial solar-energy systems do not include solar pool heating or other recreational applications.

2. Residential and commercial solar-energy systems do not include property used in the transmission or distribution of electricity outside the production process, including any interconnection equipment components,

substation equipment, meters, wire, intra-solar facility electrical collection equipment, cables, junction boxes, poles, step-up transformers or other equipment used beyond the inverter.

3. Sales of electricity must be pursuant to a written agreement under which such electricity is generated by solar energy system equipment that is: (A) owned by a person other than the purchaser of such electricity; (B) installed on property of the purchaser of such electricity; and (C) used to provide heating, cooling, hot water or electricity to such property.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

1. Local governments may grant an exemption from local sales taxes. See http://www.tax.state.ny.us/pubs_and_bulls/publications/sales_pubs.htm The solar sales tax list is Publication 718-S.

2. The exemption for commercial solar energy equipment applies to the 4% state sales and use tax and the 3/8% sales and use tax imposed in the Metropolitan Commuter Transportation District (MCTD); localities may elect to grant an exemption for local sales and use taxes.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

36.08 New York state sales tax exemption for wind farm components

A. GENERAL DESCRIPTION. New York provides a sales tax exemption in the amount of 100% of the tax on wind farm components. NY CLS Tax, Article 28 §1115 (a)(1); NY CLS Tax, Article 28 §1105-B; New York Department of Taxation and Finance TSB-A-09(59)S.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of machinery, equipment, tools and supplies used in connection with generating electricity for sale.

C. QUALIFYING ACTIVITY. Taxpayer must purchase: (i) machinery or equipment with a useful life of more than a year for use or consumption directly and predominantly in the generation of electricity for sale; or (ii) tools and supplies with a useful life of one year or less and also exempts services for installation and maintenance used in connection with such generating machinery and equipment.

1. Qualifying property includes wind turbine equipment, consisting of rotor blades, hub, nacelle and tower, constitute a unitary piece of machinery or equipment that is used directly and predominantly in the generation of electricity for sale.

2. Qualifying property includes property purchased by the wind farm operator or purchased by a contractor or subcontractor and sold to the operator on an installed basis.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

36.09 New York state tax income credit for fuel cell electric generating equipment

A. GENERAL DESCRIPTION. New York provides an income tax credit in the amount of 100% of the cost for fuel cell electric generating equipment. *N.Y. Tax Law §210.37.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasing fuel cell electric generating equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase fuel cell electric generating equipment. Fuel cell electric generating equipment are onsite electricity generation units utilizing proton exchange membrane fuel cells, providing a rated baseload capacity of no less than one kilowatt and no more than 100 kilowatts of electricity. Materials, labor for onsite preparation, assembly and original installation, engineering services,

designs and plans directly related to construction or installation and utility compliance costs.

1. Fuel cell electric generating equipment does not include interest or other finance charges, or the amount of any federal, state or local grants received.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the cost of fuel cell electric generating equipment.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$1,500 per unit.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

36.10 New York state property tax exemption for green buildings

A. GENERAL DESCRIPTION. New York provides a property tax exemption in various amount of the tax on green buildings. *NY RPT Law §470; S.B. 1462 (2012); A.B. 8009 (2014).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of green buildings.

1. Taxpayer must be certified by the assessor of the local jurisdiction.

C. QUALIFYING ACTIVITY. Taxpayer must own a green building. A green building is any building that meets LEED certification standards for green buildings, Green Building Initiative's Green Globes rating system, the American National Standards Institute, or substantially equivalent standards for certification using a similar program for green buildings as determined by the local jurisdiction.

1. Green building improvements do not include ordinary maintenance and repairs.

D. INCENTIVE AMOUNTS. The tax exemption amount of property tax due is the amount of any increase in assessed value resulting from the construction or reconstruction of the qualifying property. The tax exemption amount is: (i) for LEED Certified Silver, 100% in years 1 through 3, and a 20% decrease every year thereafter; (ii) for

LEED Certified Gold, 100% in years 1 through 4, and a 20% decrease every year thereafter; and (iii) for LEED Certified Platinum, 100% in years 1 through 6, and a 20% decrease every year thereafter.

E. INCENTIVE LIMITS. The local jurisdiction must adopt local laws to grant the property tax exemption.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

36.11 New York state sales tax exemption for alternative fuel sales

A. GENERAL DESCRIPTION. New York provides a sales tax exemption in the amount of 100% of alternative fuel sales. *N.Y. Tax Law §1115(42); A.B. 9710 (2010); Part V of Ch 59 (2014); TSB-M-14(4)M, (12)S, 07/24/2014.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayers purchasing alternative fuel.

C. QUALIFYING ACTIVITY. Taxpayer must purchase alternative fuel. Alternative fuel is E85, CNG or hydrogen, for use or consumption directly and exclusively in the engine of a motor vehicle.

1. Alternative fuel also includes qualifying B20 fuel.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due. The tax exemption amount is 20% for retail sales of qualifying B20 fuel.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires August 31, 2016.

G. MISCELLANEOUS.

36.12 New York state property tax abatement for green roofs

A. GENERAL DESCRIPTION. New York provides a property tax abatement in the amount of \$5.23 per

square foot the tax on green roofs. *N.Y. Real Property Tax Law §§499–aaa to 499–ggg.*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of green roofs.

1. Taxpayer must be certified by the assessor of the local jurisdiction.

C. QUALIFYING ACTIVITY. Taxpayer must own a green roof. A green roof is an addition to a roof of an eligible building that covers at least 50% of such building's eligible rooftop space and includes: (a) a weatherproof and waterproof roofing membrane layer that complies with local construction and fire codes, (b) a root barrier layer, (c) an insulation layer that complies with the Energy Conservation Construction Code of New York state and local construction and fire codes, (d) a drainage layer that complies with local construction and fire codes and is designed so the drains can be inspected and cleaned, (e) a growth medium, including natural or simulated soil, with a depth of at least two inches, (f) if the depth of the growth medium is less than three inches, an independent water holding layer that is designed to prevent the rapid drying of the growth medium, such as a non-woven fabric, pad or foam mat or controlled flow roof drain, unless the green roof is certified not to need regular irrigation to maintain live plants, and (g) a vegetation layer, at least 80% of which must be covered by live plants such as (i) sedum or equally drought resistant and hardy plant species, (ii) native plant species, and/or (iii) agricultural plant species.

1. Eligible building is a class one, class two or class four real property, as defined in subdivision one of §1802, located within a city having a population of one million or more person.
2. Qualifying green roofs must be certified by a designated agency.

D. INCENTIVE AMOUNTS. The tax abatement amount is \$5.23 per square foot of a green roof.

E. INCENTIVE LIMITS. The local jurisdiction must adopt local laws to grant the property tax abatement. The tax abatement expires June 30, 2019.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

36.13 New York state sales tax exemption for fuel cell electricity generating systems equipment

A. GENERAL DESCRIPTION. New York provides a sales tax exemption in the amount of 100% of the tax on fuel cell electricity generating systems equipment. *NY CLS Tax, Article 28 §1115 (kk); New York Technical Service Bureau Memorandum No. TSB-M-16(3)S.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of fuel cell electricity generating systems equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase fuel cell electricity generating systems equipment. Fuel cell electricity generating systems equipment is an electric generating arrangement or combination of components installed upon non-residential premises that utilize solid oxide, molten carbonate, proton exchange membrane or a phosphoric acid fuel cell, or for the purposes of this exemption only, a linear generator.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

1. Local governments may grant an exemption from local sales taxes. See http://www.tax.state.ny.us/pubs_and_bulls/publications/sales_pubs.htm The solar sales tax list is Publication 718-S.
2. The exemption for commercial solar energy equipment applies to the 4% state sales and use tax and the 3/8% sales and use tax imposed in the Metropolitan Commuter Transportation District (MCTD); localities may elect to grant an exemption for local sales and use taxes.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

37. North Carolina State Tax Incentives for Renewable Energy and Energy Efficiency

37.01 North Carolina state property tax assessment for solar energy electric system

A. GENERAL DESCRIPTION. North Carolina provides a property tax assessment in the amount of 80% the cost of solar energy electric system. *N.C. Gen. Stat. §105-275 (section 45).*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer owners installing solar energy electric system property.

C. QUALIFYING ACTIVITY. Taxpayer must install a solar energy electric system. A solar energy electric system is all equipment used directly and exclusively for the conversion of solar energy to electricity.

D. INCENTIVE AMOUNTS. The tax exemption amount is 80% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

37.02 North Carolina state property tax abatement for active solar heating and cooling systems

A. GENERAL DESCRIPTION. North Carolina provides a property tax abatement in the amount of 100% of active solar heating and cooling systems. *N.C. Gen. Stat. §105-277(g).*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of solar heating and cooling system property.

C. QUALIFYING ACTIVITY. Taxpayer must install solar heating and cooling system property. Qualifying property includes all controls, tanks, pumps, heat exchangers and other equipment

used directly and exclusively for the conversion of solar energy for heating or cooling.

D. INCENTIVE AMOUNTS. The tax abatement amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

37.03 North Carolina state sales tax exemption for alternative fuels

A. GENERAL DESCRIPTION. North Carolina provides a sales tax exemption in the amount of 100% of the tax on alternative fuels. *N.C. Gen. Stat. §105-164.13(11); N.C. Gen. Stat. §105-449.130.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayers purchasing alternative fuels.

C. QUALIFYING ACTIVITY. Taxpayer must purchase alternative fuels. An alternative fuel is a combustible gas or liquid that can be used to generate power to operate a highway vehicle and that is not subject to tax under Article 36C of this N.C. Gen. Stat. §105.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

37.04 North Carolina state corporate income tax credit for cogenerating power plants

A. GENERAL DESCRIPTION. North Carolina provides an income tax credit in the amount of 10% of the cost paid for a cogeneration power plant. *N.C. Gen. Stat. §105-130.25.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations purchase and installing cogenerating power plants.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install the electrical or mechanical power generation equipment of a cogenerating power plant.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the cost paid for a cogeneration power plant. A cogenerating power plant is a power plant that sequentially produces electrical or mechanical power and useful thermal energy using natural gas as its primary energy source.

E. INCENTIVE LIMITS. The maximum cumulative statewide tax credit amount is \$5 million.

F. INCENTIVE TIMEFRAME. The tax credit may be carried forward 10 years.

G. MISCELLANEOUS.

38. North Dakota State Tax Incentives for Renewable Energy and Energy Efficiency

38.01 North Dakota state property tax abatement for geothermal, solar and wind property

A. GENERAL DESCRIPTION. North Dakota provides a property tax abatement in the amount of 100% of the tax on geothermal, solar and wind property. *N.D. Cent. Code §57-02-08(27)*.

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of solar, wind or geothermal energy property.

C. QUALIFYING ACTIVITY. Taxpayer must own solar, wind or geothermal energy property. Solar or wind energy property is a system or mechanism or series of mechanisms designed to provide heating or cooling or to produce electrical or mechanical power, or any combination of these, or to store any of these, by a method which converts the natural energy of the sun or wind. Geothermal energy property is a system or mechanism or series of mechanisms designed to provide heating or cooling or to produce electrical or mechanical power, or any combination of these, by a method which extracts or converts the energy naturally occurring beneath the earth's surface in rock structures, water, or steam.

D. INCENTIVE AMOUNTS. The tax abatement amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement period is 5 years.

G. MISCELLANEOUS.

38.02 North Dakota state income tax credit for biodiesel production

A. GENERAL DESCRIPTION. North Dakota provides an income tax credit over 5 years in the amount of 50% the cost of biodiesel production or blending facilities. *N.D. Cent. Code §57-38-*

01.8(7); N.D. Cent. Code §57-38-30.6; S.B. 2034 (2011).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of biodiesel production or blending facilities

C. QUALIFYING ACTIVITY. Taxpayer must retrofit an existing facility producing or blending biodiesel fuel or construct of a new facility producing or blending biodiesel fuel. Biodiesel is fuel meeting the specifications adopted by the ASTM.

1. Qualifying biodiesel includes blended diesel fuel containing at least 2% biodiesel fuel by volume.

2. Qualifying biodiesel includes green diesel fuel made from nonfossil renewable resources, including plants, animal fats, residue and waste from agricultural production.

3. Qualifying facility includes soybean and canola crushing facilities.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the cost of biodiesel production or blending facilities per year for 5 years.

1. The cost of biodiesel production or blending facilities includes eligible costs incurred before the year production or blending begins.

E. INCENTIVE LIMITS. The maximum cumulative tax credit amount is \$250,000 per taxpayer.

F. INCENTIVE TIMEFRAME. The tax credit is taken over 5 years. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

38.03 North Dakota state income tax credit for biodiesel sales equipment costs

A. GENERAL DESCRIPTION. North Dakota provides an income tax credit over 5 years in the amount of 50% the costs of biodiesel sales equipment. *N.D. Cent. Code §57-38-01.23; N.D. Cent. Code §57-38-29 et seq.; S.B. 2034 (2011)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of equipment for biodiesel sales facilities.

1. The amount of tax credit allowed with respect to a pass-through entity's investments must be determined at the pass-through entity level. The tax credit must be allocated to corporate partners, shareholders, or members in proportion to their respective interests in the pass-through entity.

C. QUALIFYING ACTIVITY. Taxpayer must purchase equipment for biodiesel sales facilities. Biodiesel is fuel meeting the specifications adopted by the ASTM.

1. Qualifying biodiesel includes blended diesel fuel containing at least 2% biodiesel fuel by volume.

2. Qualifying biodiesel includes green diesel fuel made from nonfossil renewable resources, including plants, animal fats, residue and waste from agricultural production.

3. Qualifying equipment must be added to facilities licensed under N.D. Cent. Code §57-43.2-05.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% the costs of biodiesel sales equipment per year for 5 years.

E. INCENTIVE LIMITS. The maximum cumulative tax credit amount is \$50,000.

F. INCENTIVE TIMEFRAME. The tax credit is taken over 5 years. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

38.04 North Dakota state income tax credit for biodiesel blending

A. GENERAL DESCRIPTION. North Dakota provides an income tax credit in the amount of \$0.05 per gallon of biodiesel blended. *N.D. Cent. Code §57-38-01.22; N.D. Cent. Code §57-38-30 et seq.; S.B. 2023 (2011).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer fuel suppliers who blend biodiesel fuel.

1. Taxpayer must be certified by the ND Office of State Tax Commissioner.

2. The amount of the total credit determined at a pass-through entity level must be passed through to the partners, shareholders, or members in proportion to their respective interests in the pass-through entity.

C. QUALIFYING ACTIVITY. Taxpayer must blend diesel fuel must contain at least 5% biodiesel fuel by volume. Biodiesel is fuel meeting the specifications adopted by the ASTM.

1. Qualifying biodiesel includes green diesel fuel made from nonfossil renewable resources, including plants, animal fats, residue and waste from agricultural production.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.05 per gallon of biodiesel fuel.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

38.05 North Dakota state sales tax exemption for biodiesel production equipment

A. GENERAL DESCRIPTION. North Dakota provides a sales tax exemption in the amount of 100% of the tax due on biodiesel production equipment. *N.D. Cent. Code §57-39.2-04(51); S.B. 2034 (2011).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of biodiesel production equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase biodiesel production equipment. Biodiesel production equipment is equipment used by a facility, licensed under section 57-43.2-

05, to enable the facility to sell diesel fuel containing at least 2% biodiesel fuel by volume. Biodiesel is fuel meeting the specifications adopted by the ASTM.

1. Qualifying biodiesel includes green diesel fuel made from nonfossil renewable resources, including plants, animal fats, residue and waste from agricultural production.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

38.06 North Dakota state sales tax exemption for fuel cell hydrogen fuel and equipment

A. GENERAL DESCRIPTION. North Dakota provides a sales tax exemption in the amount of 100% of the tax due on fuel cell hydrogen fuel and equipment. *N.D. Cent. Code §57-39.2-04(50)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers of fuel cell hydrogen fuel and equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase fuel cell hydrogen fuel and equipment. Fuel cell hydrogen fuel is hydrogen sold at retail to power a fuel cell. Fuel cell hydrogen equipment is equipment used directly and exclusively in the production and storage qualifying hydrogen fuel.

1. Storage is stationary and portable hydrogen containers or pressure vessels, piping, tubing, fittings, gaskets, controls, valves, gauges, pressure regulators, safety relief devices, and other accessories intended for hydrogen storage containers or pressure vessels.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the tax due.

39. Ohio State Tax Incentives for Renewable Energy and Energy Efficiency

39.01 Ohio state property tax financing option for special energy improvement districts

A. GENERAL DESCRIPTION. Ohio provides a property tax financing option for municipalities for special energy improvement districts. *Ohio Rev. Code Ann. §1710.01 et seq.; H.B. 1 (2009)*.

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing photovoltaic or solar-thermal systems on real property.

1. Taxpayers must provide their solar - energy project plans as part of the petition, as it would serve as the request and basis for levying the special assessment on the participating owners' property.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance photovoltaic or solar-thermal systems on real property.

D. INCENTIVE AMOUNTS. The tax credit amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

39.02 Ohio state property tax exemption for solar, wind, and hydrothermal energy systems

A. GENERAL DESCRIPTION. Ohio provides property tax exemption in the amount of 100% of the tax on solar and wind energy systems and hydrothermal energy systems. *Ohio Rev. Code Ann. §5709.53; Ohio Rev. Code Ann. §1551.20; Ohio Dept. of Dev., Emergency Regs. §§122:23-1-01 to -11*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar and wind energy systems and hydrothermal energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own a solar or wind energy system or hydrothermal energy system. A solar and wind energy system is a method used directly to provide space heating or cooling, hot water, industrial process heat or mechanical or electric power by the collection, conversion or storage of solar or wind energy, including, but not limited to, active or passive solar systems. A hydrothermal energy system is any method used directly to provide a heating or cooling effect by causing a thermal exchange with the earth utilizing any water source, including ground or surface water, by use of appropriate heat exchange equipment.

1. Qualifying energy systems must be certified by the OH Director of Development.

2. Qualifying energy systems include a substation connected to the generation equipment is included in the exemption if the substation is owned by the same person who owns the interconnected wind turbines, solar panels, or other generation equipment

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

39.03 Ohio state tax exemptions for energy conversion and thermal efficiency improvements

A. GENERAL DESCRIPTION. Ohio provides tax exemptions in the amount of 100% of tax on energy conversion and thermal efficiency improvements. *Ohio Rev. Code Ann. §3706 et seq; Ohio Rev. Code Ann. §5739 et seq. ; Ohio Rev. Code Ann. §5709.20 et seq.; Ohio Rev. Code Ann. §5733.05; OAC 5703-1-06*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer buyers and owners of property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy.

C. QUALIFYING ACTIVITY. Taxpayer must own property used in energy conversion, thermal-efficiency improvements and the conversion of solid waste to energy. Energy conversion is the replacement of fossil-fuel resources with alternative fuels or technologies. Thermal efficiency improvements is the recovery of waste heat or steam produced in any commercial or industrial processes. Solid waste conversion is the use of waste to produce energy and the utilization of such energy. Qualifying systems include solar-thermal systems, photovoltaic systems, wind, biomass, landfill gas and waste-recovery systems.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax and property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

40. Oklahoma State Tax Incentives for Renewable Energy and Energy Efficiency

40.01 Oklahoma state income tax credit for zero-emission electricity production

A. GENERAL DESCRIPTION. Oklahoma provides an income tax credit in the amount of \$0.0050/kWh of zero-emission electricity production. Okla. Stat. 68 §2357.32A; H.B. 3024 (2010); S.B. 343 (2013); H.B. 1416 (2014); H.B. 2298 (2017); Oklahoma Letter Ruling No. LR 17-001, 03/07/2017; S.B. 893 (2018); H.B. 1263 (2019); S.B. 475 (2019); Kingfisher Wind v. Wehmuller, Okla. S. Ct., Dkt. No. 119837, 10/18/2022.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer owners of zero-emission electricity production facilities.

1. Taxpayer must be certified by the OK Tax Commission.
2. Taxpayer must complete Tax Form 511CR, Schedule for Other Credits.
3. Taxpayer, including nontaxable entities, may transfer the tax credit at any time during the 10 years following the year of qualification.

C. QUALIFYING ACTIVITY. Taxpayer must produce electric power using renewable energy resources from a zero-emission facility and sell the electricity to an unrelated party. Renewable energy resources include wind, moving water, sun, and geothermal energy.

1. Qualifying zero-emission facilities must have a rated production capacity of 1 MW or greater.
2. Qualifying zero-emission facility must be constructed and operated in a manner that results in no pollution or emissions that are or may be harmful to the environment, as determined by the OK Department of Environmental Quality.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.0050/kWh for 10 years.

E. INCENTIVE LIMITS. The maximum annual tax credit amount used to offset tax or paid shall be annually calculated by the Tax Commission and shall not exceed \$500,000.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2021. The tax credit for wind projects expires June 30, 2017. The tax credit period is 10 years. Unused tax credit may be carried forward 10 years. Unused tax credit remaining in the 10th year shall be refunded at \$0.85 per dollar of credit.

1. Taxpayer shareholder, partner, or member of a pass-through entity may be allocated refunds of the tax credit.

G. MISCELLANEOUS.

40.02 Oklahoma state property tax financing option for renewable and efficiency systems improvement districts

A. GENERAL DESCRIPTION. Oklahoma provides a property tax financing option for municipalities for renewable-energy systems and energy-efficiency improvement districts. Okla. Stat. 19 §460.1; S.B. 668 (2009).

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing renewable-energy systems and energy-efficiency improvements.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance renewable-energy systems and energy-efficiency improvements.

1. Renewable-energy systems and energy-efficiency improvements must at a minimum meet Energy Star ratings.
2. Renewable-energy systems and energy-efficiency improvements must be certified by an energy audit conducted on the property to be improved to demonstrate the value of the project.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

40.03 Oklahoma state personal income tax credit for energy efficient home builders

A. GENERAL DESCRIPTION. Oklahoma provides a personal income tax credit in the amount of 100% of energy efficient home building expenditures. *Okla. Stat. 68 §2357.46; Oklahoma Letter Ruling No. LR 14-027; S.B. 1603 (2016).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer primary builders of an energy efficient home or manufactured homes.

1. Taxpayer may transfer the tax credits to any transferee upon taxpayer upon the filing of a transfer agreement.

C. QUALIFYING ACTIVITY. Taxpayer must build energy efficient home or manufactured home improvements. Qualifying improvements include energy efficient heating and cooling systems, windows, doors, roofs and insulation to minimize heat loss and gain.

1. Qualifying homes must be under 2,000 square feet.
2. Qualifying improvements' heating and cooling efficiencies must meet the minimum requirements established by the National Appliance Energy Conservation Act of 1987.
3. Qualifying building envelope improvements must account for a certain percentage of the reduced annual heating and cooling energy consumption levels.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of cost of qualifying improvements.

E. INCENTIVE LIMITS. The maximum tax credit amounts are \$2,000 for a home that is between 20% and 39% above the International Energy Conservation Code 2003 and \$4,000 for a home that is 40% or above of the International Energy Conservation Code 2003.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 4 years. The tax credit expires June 30, 2016.

G. MISCELLANEOUS.

40.04 Oklahoma state income tax credit for electric and clean-burning motor vehicle fuel property

A. GENERAL DESCRIPTION. Oklahoma provides an income tax credit in the amounts of 45% of the cost of qualifying commercial recharging or fuel delivery systems and varying amounts for qualifying clean-burning motor vehicle fuel property or qualifying electric motor vehicle property. *Okla. Stat. 68 §2357.22; Okla. Admin. Code 710:50-15-81; H.B. 3024 (2010); H.B. 3297 (2014); Oklahoma Letter Ruling No. LR 14-017, 10/07/2014, released 07/22/2016; H.B. 2095 (2019); S.B. 1857 (2022); H.B. 2542 (2023).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers placing qualifying commercial recharging or fuel delivery systems, qualifying clean-burning motor vehicle fuel property, or qualifying electric motor vehicle property in service.

1. Taxpayer may lease the property.

C. QUALIFYING ACTIVITY. Taxpayer must place in service qualifying commercial recharging or fuel delivery systems, qualifying clean-burning motor vehicle fuel property, qualifying electric motor vehicle property. Qualifying commercial recharging or fuel delivery systems includes property, not including a building and its structural components, which is: (1) directly related to the delivery of compressed natural gas, liquefied natural gas or liquefied petroleum gas, or hydrogen for commercial purposes or for a fee or charge, into the fuel tank of a motor vehicle propelled by those fuels; (2) new metered-for-fee, public access recharging systems for motor vehicles propelled in whole or in part by electricity; and (3) new property that is directly related to the compression and delivery of natural gas from a private home or residence, for noncommercial purposes, into the fuel tank of a motor vehicle propelled by compressed natural gas. Clean-

burning motor fuel property is equipment installed to modify a motor vehicle that is propelled by gasoline or diesel fuel so that the vehicle may be propelled by compressed natural gas, a hydrogen fuel cell, liquefied gas, liquefied natural gas or liquefied petroleum gas. Qualifying electric motor vehicle property is a motor vehicle originally equipped to be propelled only by electricity.

1. Qualifying electric motor vehicle property is only to the extent of the portion of the vehicle's basis that is attributable to the propulsion of the vehicle by electricity, if it is also equipped with an internal combustion engine.
2. Clean-burning motor fuel property must be new and not previously used to modify or retrofit any vehicle propelled by gasoline or diesel fuel.
3. Clean-burning motor fuel property includes the CNG dispenser, compressor, dryer, compressor enclosure, electronic soft start system, storage tanks, compressor skid with compressor plumbing and electrical wiring are property directly related to the delivery of CNG.
4. Qualifying electric motor vehicle property includes forklifts.
5. Qualifying electric motor vehicle property does not include golf carts, go-carts and other motor vehicles manufactured principally for use off the streets and highways.

D. INCENTIVE AMOUNTS. The tax credit amounts are 45% of the cost of qualifying commercial recharging or fuel delivery systems and varying amounts for qualifying clean-burning motor vehicle fuel property or qualifying electric motor vehicle property. For vehicles up to or below six thousand (6,000) pounds, the credit shall be a maximum amount of \$5,500, for vehicles between six thousand one (6,001) pounds to ten thousand (10,000) pounds, the credit shall be a maximum amount of \$9,000, for vehicles of ten thousand one (10,001) pounds, but not in excess of twenty-six thousand five hundred (26,500) pounds, the credit shall be a maximum amount of \$26,000, for vehicles in excess of twenty-six thousand five hundred one (26,501) pounds, the credit shall be a maximum amount of \$100,000.

1. When the qualifying property is installed by the manufacturer of the motor vehicle and Taxpayer purchaser is unable or elects not to determine the exact basis attributable to the property, the Taxpayer purchaser can claim a credit in an amount not exceeding the lesser of 10% of the cost of the motor vehicle or \$1,500.
2. The cost of qualifying clean-burning motor vehicle fuel property or qualifying electric motor vehicle property is only the portion of the basis of the motor vehicle attributable to the storage of the fuel, the delivery to the engine of the fuel, and the exhaust from the fuel.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$2,500 per location for noncommercial natural gas compression and delivery systems. The statewide annual maximum tax credit amount is \$20 million. For tax years 2023–2028 the total amount of credits authorized by this section used to offset tax shall be adjusted annual to limit the amount of credits as stated in 1–3 below. The Tax Commission will annually calculate and publish a percentage by which the credits shall be reduced as to not exceed:

1. \$10,000,000 for (i) qualified clean burning fuel property propelled by compressed natural gas, liquefied natural gas, or liquefied petroleum gas, (ii) property related to the delivery of compressed natural gas, liquefied natural gas or liquefied petroleum gas, and (iii) property directly related to the compression and delivery of natural gas.
2. \$10,000,000 for property originally equipped so that the vehicle may be propelled by a hydrogen fuel cell electric fueling system and property directly related to the delivery of hydrogen.
3. \$10,000,000 for property which is metered-for-fee, public access recharging system for motor vehicles propelled in whole or in part by electricity.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2028. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

40.05 Oklahoma state income tax credit for electric vehicle charging taxes

A. GENERAL DESCRIPTION. Oklahoma provides an income tax credit in the amounts of 100% of the amount of electric vehicle charging taxes paid. *Okla. Stat. 68 §6501; H.B. 2234 (2021)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals or lawfully recognized entities paying electric vehicle charging taxes.

1. Taxpayer may lease the property.

C. QUALIFYING ACTIVITY. Taxpayer must pay electric vehicle charging taxes.

D. INCENTIVE AMOUNTS. The tax credit amounts are 100% of the electric vehicle charging taxes paid.

E. INCENTIVE LIMITS. The maximum tax credit amount is the total amount of registration fees for electric vehicles paid by the Taxpayer during the taxable year for which the tax credit is claimed. The tax credit is not refundable.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2027. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

41. Oregon State Tax Incentives for Renewable Energy and Energy Efficiency

41.01 Oregon state business tax credit for energy improvements

A. GENERAL DESCRIPTION. Oregon provides a business tax credit over 5 years in the amount of 35-50% the cost of energy improvements. Or. Rev. Stat. §315.331; Or. Rev. Stat. §315.354; OAR 330-090-0105 to 330-090-0450 (2011); H.B. 3680 (2010); H.B. 3672 (2011); H.B. 2448 (2015).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer businesses placing energy improvements in service.

1. Taxpayers must be certified by the OR Department of Energy.
2. Taxpayer may transfer a tax credit to a pass-through partner in return for a lump-sum cash payment (the net present value of the tax credit, using a U.S. Treasury note to determine the real rate of return, adjusted for inflation based on the Consumer Price Index) upon completion of the project.
3. Non-profit organizations, schools, governmental agencies, tribes, and other public entities and businesses without tax liability may transfer the tax credit for an eligible project to a partner with a tax liability.
4. Taxpayer may be a homebuilder who installs renewable energy systems on the homes they construct.

C. QUALIFYING ACTIVITY. Taxpayer must invest in energy improvements. Energy improvements include energy conservation, renewable energy resources, renewable energy storage devices, high efficiency combined heat and power facilities, high-performance homes, less-polluting transportation fuels, projects that use solar, wind, hydro, geothermal, biomass or fuel cells (renewable fuels only) to produce energy, displace energy, or reclaim energy from waste, weatherization projects and energy efficiency retrofit projects must be 10% more energy efficient than the existing installation; lighting retrofits must be 25% more efficient than existing lighting, and sustainable buildings meeting established

standards set by the U.S. Green Building Council's LEED silver certification.

1. Qualifying energy conservation projects is any capital investment for which the first year energy savings yields a simple payback period of more than 3 years.
2. Qualifying new building projects must have all measures reduce energy use by at least 10% compared to a similar building that meets the minimum requirements of the state energy code.
3. Qualifying energy improvements must be certified by the OR Department of Energy.
4. Qualifying high efficiency combined heat and power facilities are a renewable energy resource facility designed to generate electrical power and thermal energy from a single fuel source with a fuel-chargeable-to-heat rate yielding annual average energy savings of 20%.
5. Qualifying high-performance homes must be certified through the Northwest Energy Star Homes Program, and meet additional requirements outlined in the technical requirements.

D. INCENTIVE AMOUNTS. The tax credit amount is 35% of the cost of the energy improvements, taken over 5 years. The tax credit amount is 10% in each of the first 2 tax years in which the tax credit is claimed and 5% in each of the succeeding 3 years.

1. The cost of the energy improvements includes those directly related to the project, including equipment cost, engineering and design fees, materials, supplies and installation costs.
2. Taxpayers with cost of the energy improvements of \$20,000 or less may take the tax credit in 1 year.
3. Qualifying wind facilities with an installed capacity of more than 10 megawatts, for which preliminary certification is issued on or after January 1, 2010, are eligible for a tax credit equal to 5% of eligible costs.

E. INCENTIVE LIMITS. The maximum tax credit amount is generally \$20 million. The maximum tax credit amount is \$10 million for renewable energy and high efficiency combined heat and power.

The maximum tax credit amounts for a homebuilder are \$9,000 per single-family home, or \$12,000 if the system is installed on a certified high-performance home.

F. INCENTIVE TIMEFRAME. The tax credit is taken over 5 years. The tax credit is taken over 6 years for qualifying projects that cost more than \$10 million. The tax credit expires on December 31, 2017. Unused tax credit may be carried forward 8 years.

G. MISCELLANEOUS.

41.02 Oregon state property tax exemption for alternative energy systems

A. GENERAL DESCRIPTION. Oregon provides a property tax exemption in the amount of 100% of the tax on alternative energy systems. *Or. Rev. Stat. §307.175; OAR 150-307.175; HB 2760 (2017).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of alternative energy system property.

1. Taxpayers whose principal business activity is directly or indirectly the production, transportation or distribution of energy are not eligible unless the system is a net metering facility.

C. QUALIFYING ACTIVITY. Taxpayer must own of alternative energy system property. Alternative energy system property includes solar, geothermal, wind, water, fuel cell or methane gas systems for the purpose of heating, cooling or generating electricity. energy systems qualify for exemption only if the system is a net metering facility or is primarily designed to offset on-site electricity use.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2023.

G. MISCELLANEOUS.

41.03 Oregon state property tax financing for renewable-energy and energy-efficiency improvement districts

A. GENERAL DESCRIPTION. Oregon provides a property tax financing option for municipalities for renewable-energy and energy-efficiency improvement districts. *Or. Rev. Stat. §285C.350 et seq.; HB 2626 (2009).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing renewable-energy systems and energy-efficiency improvements.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance renewable-energy systems or energy-efficiency improvements to residential, commercial, industrial or other qualifying real property. Qualifying renewable-energy sources includes straw, forest slash, wood waste or other wastes from farm or forest land, nonpetroleum plant or animal based biomass, ocean wave energy, solar energy, wind power, water power or geothermal energy, biofuel and certain hydroelectric generating facilities. Qualifying real property is single-family or multifamily residential dwellings or commercial or industrial buildings that the local government has determined can be benefited by energy improvements.

D. INCENTIVE AMOUNTS. The tax finance amount varies by local jurisdiction.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is up to 5 years.

G. MISCELLANEOUS.

41.04 Oregon state income tax credit for biofuel raw materials

A. GENERAL DESCRIPTION. Oregon provides income or corporate excise tax credit in the amounts described below for the production and collection of biofuel raw materials. *Or. Rev. Stat.*

§315.141; Or. Rev. Stat. §315.144(1); Or. Rev. Stat. §469B.403; Or. Admin. R. 150-315.141; H.B. 3672 (2011); S.B. 1507 (2016).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers and collectors of biofuel raw materials.

1. Taxpayer must be provided by the biofuel producer at the time biomass is transferred to the biofuel producer. A written receipt must state the quantity and type of biomass being transferred and that the biomass is to be used to produce biofuel.

2. Taxpayer may transfer the tax credit to C-corporations, S-corporations, or personal income taxpayers. An income or corporate excise tax credit that is transferable can be transferred or sold only once.

3. Taxpayer may not transfer from an agricultural producer to a biomass collector claiming a tax credit for collecting the biomass or from a biomass collector to an agricultural producer claiming a tax credit for producing the biomass.

C. QUALIFYING ACTIVITY. Taxpayer must produce biofuel or collect biofuel raw materials. Qualifying biofuel production alters the physical makeup of biomass to convert it into biofuel, changes one biofuel into another type of biofuel; or uses biomass in the state to produce energy. Biofuel is liquid, gaseous or solid fuels derived from biomass that have been converted into a processed fuel ready for use as energy by a biofuel producer's customers or for direct biomass energy use at the biofuel producer's site. Biofuel raw materials includes forest or agriculture-sourced woody biomass, oil seed crops, grain crops, grass or wheat straw and animal rendering byproducts.

1. Qualifying biofuel raw materials does not include grain corn or wheat grain.

2. Qualifying biomass is organic matter that is available on a renewable or recurring basis and that is derived from: forest or rangeland woody debris from harvesting or thinning conducted to improve forest or rangeland ecological health and reduce uncharacteristic stand replacing wildfire risk; wood material from hardwood timber; agricultural residues; offal and tallow from animal rendering; food

wastes collected; yard or wood debris collected; wastewater solids; or crops grown solely to be used for energy.

3. Qualifying biomass must be produced or collected in Oregon as a feedstock for bioenergy or biofuel production in Oregon.

4. Qualifying biomass does not include wood that has been treated with creosote, pentachlorophenol, inorganic arsenic, or other inorganic chemical compounds.

D. INCENTIVE AMOUNTS. The tax credit amount is calculated using the following rates:

1. For oil seed crops, \$0.05 per pound;

2. For grain crops, including wheat, barley and triticale, \$0.90 per bushel;

3. For virgin oil or alcohol delivered for production in Oregon from Oregon-based feedstock, \$0.10 per gallon;

4. For used cooking oil or waste grease, \$0.10 per gallon;

5. For wastewater biosolids, \$10.00 per wet ton;

6. For woody biomass collected from nursery, orchard, agricultural, forest or rangeland property in Oregon, including prunings, thinning, plantation rotations, log landing or slash resulting from harvest or forest health stewardship, \$10.00 per green ton;

7. For grass, wheat, straw or other vegetative biomass from agricultural crops, \$10.00 per green ton;

8. For yard debris and municipally generated food waste, \$5.00 per wet ton; and

9. For animal manure or rendering offal, \$3.50 per wet ton.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2017. The tax credit for animal manure or rendering offal expires December 31, 2021. Unused tax credit may be carried forward 4 years.

G. MISCELLANEOUS.

41.05 Oregon state personal income tax credit for residential renewable energy property

A. GENERAL DESCRIPTION. Oregon provides an income tax credit in amounts described below for residential renewable energy property. *Or. Rev. Stat. §469B.130 et seq.; OAR 330-070-0010 to 330-070-0097; Or. Rev. Stat. §315.354; Or. Rev. Stat. §316.116; S.B. 1507 (2016); H.B. 4110 (2016); Cerney v. Dept. of Rev., Or. Tax Ct., Magis. Div., Dkt. No. TC-MD 220160N, 11/18/2022.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals purchasing residential renewable energy property.

C. QUALIFYING ACTIVITY. Taxpayer must purchase residential renewable energy property. Residential renewable energy property includes premium-efficiency appliances, heating and cooling systems, duct systems, closed-loop geothermal space or water heating systems, solar water and space heating systems, photovoltaics, wind, fuel cells.

1. Residential renewable energy property includes vehicles that run on alternative type of fuels, such as electricity, natural gas, methanol, propane and hydrogen, and that are registered in the state of Oregon to operate on public roadways.
2. Residential renewable energy property does not include air conditioners or boilers.

D. INCENTIVE AMOUNTS. The tax credit amounts are described below.

1. For photovoltaic systems and fuel cells, the tax credit amount is \$3.00 per peak watt.
2. For premium efficiency biomass combustion devices, the tax credit amount is 25% of the cost.
3. For solar space and water heating systems, and wind-powered mechanical systems, the tax credit amount is \$0.60 per kWh saved during the first year.
4. For closed-loop geothermal systems for space or water heating, the tax credit amount range from \$300 to \$900 per system.

5. For wind turbine systems that produce electricity, the tax credit amount is the lesser of \$2.00 per kWh produced during its first year, or \$6,000 per system.

6. For appliances recognized as premium efficiency by the OR Department of Energy, the tax credit amount is lesser of \$0.40 per kWh saved in the first year or 25% of the net cost of the appliance.

7. For performance-tested duct systems, the tax credit amount is 25% of the cost.

8. For air-source heat pump systems, the tax credit amount range from \$300 to \$500 per system.

9. For condensing furnaces and boilers, the tax credit amounts are \$350 and \$225, respectively. If the heat pumps and furnaces are connected to a performance-tested duct system, they are eligible for an additional \$150 tax credit.

10. For home charging or alternative fueling system, the tax credit amount varies.

11. For alternative fuel vehicles the tax credit amount is 25% of the cost.

E. INCENTIVE LIMITS. The maximum annual tax credit allowed to be claimed is \$1,500 or the taxpayer's tax liability, whichever is less. The maximum tax credit amounts are: \$6,000, up to 50% of the installed cost for photovoltaic systems and fuel cells; \$300 for premium efficiency biomass combustion devices; \$1,500 for solar space and water heating systems, and wind-powered mechanical systems; \$900 for closed-loop geothermal systems for space or water heating systems; \$6,000, up to 50% of the installed cost for wind turbine systems that produce electricity systems; the lesser of \$0.40/kWh saved in the first year or 25% of the net cost of the appliance for appliances recognized as premium efficiency by the OR Department of Energy; \$250 for performance-tested duct systems; \$500 for qualifying air-source heat pump systems; \$350 for qualifying condensing furnaces; \$225 for qualifying condensing boilers; \$750 for an alternative fuel vehicle; and \$750 for an alternative fuel vehicle charging or fueling system.

1. Qualifying heat pumps and furnaces connected to a performance-tested duct system are eligible for an additional \$150 tax credit.

F. **INCENTIVE TIMEFRAME.** The tax credit expires on December 31, 2017 and December 31, 2011 for alternative fuel vehicles and equipment. Unused tax credit may be carried forward 5 years.

1. Taxpayer must file an application for preliminary certification on or before April 15, 2011.

G. **MISCELLANEOUS.**

41.06 Oregon state tax credit for renewable energy development contributions

A. **GENERAL DESCRIPTION.** Oregon provides a tax credit in the amount of 100% amount of renewable energy development contributions conducted by auction to the state Renewable Energy Development Subaccount. *Or. Rev. Stat. §315.326; Or. Rev. Stat. §317.326; H.B. 3672 (2011).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayers making renewable energy development contributions to the Renewable Energy Development Subaccount.

1. Taxpayer must be certified by the OR Department of Energy.

C. **QUALIFYING ACTIVITY.** Taxpayer must make a renewable energy development contribution to the state Renewable Energy Development Subaccount.

1. Grants are made out this state subaccount for the installation and construction of renewable energy production systems.
2. A renewable energy production system means a system that uses biomass, solar, geothermal, hydroelectric, wind, landfill gas, biogas or wave, tidal or ocean thermal energy technology to produce energy.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 100% of the amount of renewable energy development contributions to the state Renewable Energy Development Subaccount. Tax credits will be sold by an auction conducted by the OR Department of Revenue and State Department of

Energy. The reserve amount is at least 95% of the total tax credit.

E. **INCENTIVE LIMITS.** The tax credit is not refundable. The aggregate annual maximum tax credit amount is \$1.5 million.

F. **INCENTIVE TIMEFRAME.** The tax credit must be claimed the year of the contribution. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 3 years.

G. **MISCELLANEOUS.**

41.07 Oregon state tax credit for renewable energy conservation projects

A. **GENERAL DESCRIPTION.** Oregon provides a tax credit in the amount of 35% of the cost of renewable energy conservation projects. *Or. Rev. Stat. §§315.354, .357, and 469B.130 through .169; H.B. 3672 (2011); H.B. 4079 (2012); Or. Admin. Reg. §§330-210-0000 et seq; L. 2011Chapter 730 §38.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer placing in service renewable energy conservation projects.

1. A new owner, or, upon re-leasing of the project, a new lessee, may apply for a new certificate.
2. The owner of a project may transfer a tax credit for the project in exchange for a cash payment equal to the present value of the tax credit determined quarterly by the OR State Department of Energy.

C. **QUALIFYING ACTIVITY.** Taxpayer must place in service renewable energy conservation projects. A renewable energy conservation project is a capital investment for which the first year energy savings yields a simple payback period of more than 3 years.

1. The project must be certified by OR State Department of Energy. Certification may be waived for projects with costs less than \$20,000. In determining the priority of any energy conservation project for tax credits, preference shall be given to those projects

that have the highest energy savings over the 5-year credit allowance period per tax credit dollar.

2. If the project is new construction or a total building retrofit, then the project must achieve, at a minimum, the energy efficiency standards required for: (A) LEED Platinum certification; (B) a four globes rating from the Green Globes program; (C) a nationally or regionally recognized and appropriate sustainable building program whose performance standards are equivalent to the standards required for LEED Platinum certification or a four globes rating from the Green Globes program, as determined by the State Department of Energy; or (D) verification that the construction conformed to the standards of the OR Reach Code.

D. INCENTIVE AMOUNTS. The tax credit amount is 35% of the project cost.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$10 million per project.

F. INCENTIVE TIMEFRAME. The tax credit period is a 1-year period if the tax credit amount is less than \$7,000. The tax credit period is 5 years if the tax credit amount is more than \$7,000, payable 28.6% in each year 1 and 2, and 14.3% in each year 3, 4, and 5. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

41.08 Oregon state tax credit for alternative fuel vehicle infrastructure

A. GENERAL DESCRIPTION. Oregon provides a tax credit in the amount of 35% of the cost of alternative fuel vehicle infrastructure. Or. Rev. Stat. §315.336; Or. Rev. Stat. §69B.320 et seq.; H.B. 3672 (2011); Or. Admin. Reg. §§330-220-0000 et seq.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer placing in service alternative fuel vehicle infrastructure.

1. The owner of a project may transfer a tax credit for the project in exchange for a cash

payment equal to the present value of the tax credit determined quarterly by the OR State Department of Energy.

C. QUALIFYING ACTIVITY. Taxpayer must place in service alternative fuel vehicle infrastructure. An alternative fuel vehicle infrastructure project includes a facility for mixing, storing, compressing or dispensing fuels for alternative fuel vehicles, and any other necessary and reasonable equipment. Alternative fuel includes but not limited to electricity, natural gas, ethanol, methanol, propane and any other fuel approved in rules adopted by the Director of the State Department of Energy that produces less exhaust emissions than vehicles fueled by gasoline or diesel.

1. The project must be certified by OR State Department of Energy.

D. INCENTIVE AMOUNTS. The tax credit amount is 35% of the project cost.

E. INCENTIVE LIMITS. The statewide aggregate maximum tax credit amount is \$10 million. Qualifying costs for utility connections for electric vehicle charging stations are also limited by location to: (i) \$5,000 for a Level 1, 120 volt AC or similar, electric vehicle charging station; (ii) \$15,000 for a Level 2, 240 volt AC or similar, electric vehicle charging station; (iii) \$30,000 for a DC Fast Charger, or similar, electric vehicle charging station.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS.

41.09 Oregon state property tax exemption for rural renewable energy development zones

A. GENERAL DESCRIPTION. Oregon provides a property tax exemption in the amount of 100% for rural renewable energy developments. Or. Rev. Stat. §385C.350 et seq.; H.B. 2981 (2013).

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of rural renewable energy developments.

1. Rural renewable energy development zones must be certified by the OR Business Development Department.
2. Rural area is an area in the state that is not within the urban growth boundary of a city with a population of 30,000 or more.

C. QUALIFYING ACTIVITY. Taxpayer must own rural renewable energy development property. Rural renewable energy development property is all or a part of a facility used to generate renewable energy or is used to support or maintain a renewable energy facility and is newly constructed or installed in the rural renewable energy development zone.

1. Renewable energy is electricity that is generated through use of a renewable energy resource or a liquid, gaseous or solid fuel for commercial sale or distribution that is one of the following: (a) a biofuel, such as biodiesel or ethanol that is derived from an organic source. As used in this paragraph, "biofuel" includes, but is not limited to, raw biomass harvested for biofuel or suitable by-products, residue from agriculture, forestry or other industries and residue from commercial or municipal waste collection, or (b) a fuel additive that has been verified under the United States Environmental Protection Agency's Environmental Technology Verification Program or the California Air Resources Board verification program and is composed of at least 90% renewable materials.
2. Renewable energy resource includes, but is not limited to: (a) straw, forest slash, wood waste or other wastes from farm or forest land, nonpetroleum plant or animal based biomass, ocean wave energy, solar energy, wind power, water power or geothermal energy; (b) a hydroelectric generating facility that obtains all applicable permits and complies with all state and federal statutory requirements for the protection of fish and wildlife and that: (i) does not exceed 10 megawatts of installed capacity; or (ii) qualifies as a research, development or demonstration facility; or (c) a

renewable energy storage device as defined by the director by rule.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The maximum tax exemption period is 3 years.

G. MISCELLANEOUS.

41.10 Oregon state income tax credit for bovine manure production or collection for biofuel

A. GENERAL DESCRIPTION. Oregon provides income or corporate excise tax credit in the amounts described below for the production and collection of bovine manure that is used as biofuel or to produce biofuel. *Or. Rev. Stat. §315.176; H.B. 4028 (2018).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers and collectors of bovine manure in Oregon that is used, in Oregon, as biofuel or to produce biofuel.

1. The Taxpayer must be certified by the State Department of Agriculture.
2. Taxpayer may transfer the tax credit to C-corporations, S-corporations, or personal income taxpayers.

C. QUALIFYING ACTIVITY. Taxpayer must produce bovine manure in Oregon that is used, in Oregon, as biofuel or to produce biofuel. Bovine manure is cattle manure that is produced on Oregon farms. Qualifying biofuel production alters the physical makeup of biomass to convert it into biofuel, changes one biofuel into another type of biofuel; or uses biomass in the state to produce energy. Biofuel is liquid, gaseous or solid fuels derived from biomass that have been converted into a processed fuel ready for use as energy by a biofuel producer's customers or for direct biomass energy use at the biofuel producer's site.

1. Qualifying bovine manure must be produced or collected in Oregon that is used, in Oregon, as biofuel or to produce biofuel.
2. Cattle is cows, heifers, bulls, steers or calves.

D. INCENTIVE AMOUNTS. The tax credit amount is \$3.50 per wet ton.

E. INCENTIVE LIMITS. The statewide aggregate maximum tax credit amount is \$5 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2021. Unused tax credit may be carried forward 4 years.

G. MISCELLANEOUS.

42. Pennsylvania State Tax Incentives for Renewable Energy and Energy Efficiency

42.01 Pennsylvania state property tax exemption for commercial wind farms and alternative energy systems

A. GENERAL DESCRIPTION. Pennsylvania provides a property tax exemption in the amount of 100% of the tax on wind turbines and related equipment (including towers and foundations) and alternative energy systems. *72 Penn. Stat. §5490.1 et seq.; 72 Penn. Stat. §1648.2 et seq.; 72 Penn. Stat. §5453.201 et seq.; H.B. 1394 (2009).*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer owners of commercial wind farm real property and alternative energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own commercial wind farm real property or alternative energy systems. Commercial wind farm real property includes wind turbine generated generators or related wind energy appliances and equipment, including towers and tower foundations. Alternative energy sources are solar photovoltaic and solar thermal energy, wind power, low-impact hydropower, geothermal energy, biologically derived methane gas, fuel cells, biomass energy, and coal mine methane.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the property tax due.

E. INCENTIVE LIMITS. The valuation of real property used for the purpose of wind-energy generation will utilize the income capitalization approach to value.

F. INCENTIVE TIMEFRAME. Taxpayer must provide relevant, nonproprietary lease and lease-income information to county assessors by September 1 of each year.

G. MISCELLANEOUS.

44. Rhode Island State Tax Incentives for Renewable Energy and Energy Efficiency

44.01 Rhode Island state sales tax exemption for renewable energy systems and equipment

A. GENERAL DESCRIPTION. Rhode Island provides a sales tax exemption in the amount of 100% of the tax on renewable energy systems and equipment. *R.I. Gen. Laws §44-18-30(57); Rhode Island Ruling Request No. 2018-01; Rhode Island Ruling Request No. 2019-02.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of renewable energy systems and equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase of renewable energy systems and equipment. Renewable energy systems and equipment include solar photovoltaic modules or panels, or any module or panel that generates electricity from light; solar thermal collectors, including those manufactured with flat glass plates, extruded plastic, sheet metal, and/or evacuated tubes; geothermal heat pumps, including both water-to-water and water-to-air type pumps; wind turbines; towers used to mount wind turbines if specified by or sold by a wind turbine manufacturer; DC to AC inverters that interconnect with utility power lines; manufactured mounting racks and ballast pans for solar collector, module or panel installation.

1. Renewable energy systems and equipment include components that are specified and/or sold by the same manufacturer of the renewable energy products and are consumed in and/or incorporated into the construction or assembly of the renewable energy products.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

44.02 Rhode Island state property tax exemption for renewable-energy systems

A. GENERAL DESCRIPTION. Rhode Island provides a property tax exemption in the amount of 100% of the tax on renewable-energy systems. *R.I. Gen. Laws §44-3-21.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy system property.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy system property.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS. The local jurisdiction must adopt local laws to grant the property tax exemption.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

44.03 Rhode Island state income tax credit for hydroelectric power installation

A. GENERAL DESCRIPTION. Rhode Island provides an income tax credit, in the amount of 10% of the installation cost of small hydroelectric power facilities. *R.I. Gen. Laws §44-30-20 et seq.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations and individuals installing small hydroelectric power facilities.

C. QUALIFYING ACTIVITY. Taxpayer must install a small hydroelectric power facility. A small hydroelectric power facility is any in-state hydroelectric power project that uses the water power potential of an existing dam, and that has no more than 15,000 kilowatts of installed capacity.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the cost of the small hydroelectric power facility.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$50,000. Unused tax credit may be carried forward 5 years.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

44.04 Rhode Island state income tax credit for residential renewable energy systems

A. GENERAL DESCRIPTION. Rhode Island provides an income tax credit in the amount of 25% of the cost of residential renewable energy systems. *R.I. Gen. Laws §44-57-1, et seq.; H.B. 6332 (2010).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to corporate Taxpayer owners, renters, contract buyers or speculative sellers of residences incorporating renewable energy systems and Taxpayer purchasers of residential renewable energy systems.

1. Taxpayer must be certified by the RI Office of Energy Resources.
2. Taxpayer members or partners of pass-through entities divide the tax credit in the same manner as income.

C. QUALIFYING ACTIVITY. Taxpayer must own, rent, or sell residences incorporating renewable energy systems or purchase residential renewable energy systems. Renewable energy systems include photovoltaic systems (on-grid and off-grid), solar hot-water systems, active solar-heating systems, wind-energy systems and geothermal-energy systems.

1. Qualifying photovoltaic systems must have a minimum module size of 24 square feet, and must either be connected to the grid or to a battery-storage system.
2. Qualifying solar domestic hot water system is a configuration of solar collectors, pump, heat exchanger, and storage tank

designed to heat water. Solar domestic hot water system include forced circulation, integral collector storage, thermosyphon, and self-pumping. Solar domestic hot water system is considered a new system if changes occur in type or size of collectors, heat exchanger type or effectiveness, size of storage tank, or system type. Solar domestic hot water systems must have a minimum collector area of 34 square feet and must include a storage tank that holds at least 80 gallons.

3. Qualifying active solar-heating systems must have a minimum collector area of 125 square feet, and must include a system for storing and/or distributing heat to the living area of a house.

4. Qualifying wind energy system is a system that produces electricity through the use of wind generators or wind turbines. The electricity produced must be used directly, as in water pumping applications, or stored in batteries for household usage. Wind energy systems can be used alone or used as part of a hybrid system, in which their output is combined with photovoltaics and/or a fossil fuel generator. Wind energy systems must have a rotor diameter of at least 44 inches and a minimum factory-rated output of at least 250 watts at 28 miles per hour.

5. Qualifying geothermal system is a system that produces and stores energy to heat buildings, cool buildings or produces hot water. Geothermal systems must have either a minimum coefficient of performance of 3.4, or an efficiency ratio of 16 or greater. Geothermal systems must have a commissioning sign-off by the manufacturer or distributor of the equipment to verify the proper installation and performance of the system. Geothermal systems must meet the following standards: ARI/ASHRAE/ISO-13256-1 for water-to-air geothermal systems; ARI/ASHRAE/ISO-13256-2 for water-to-water geothermal systems; ARI/ASHRAE/ISO-13256 GWHP for groundwater heat pumps; ARI/ASHRAE/ISO-13256 GLHP for closed-loop heat pumps.

6. Qualifying renewable energy systems do not include passive solar space-heating systems, passive solar hot-water systems, sunspaces, solar greenhouses, photovoltaic

and wind systems on boats or recreational vehicles, solar collectors for pools, existing renewable-energy systems, used renewable-energy equipment, and repairs and replacements of existing renewable-energy systems.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of the renewable energy system.

E. INCENTIVE LIMITS. The maximum annual tax credit allowed to be claimed is 100% of the excess of the tax due above the minimum tax due. The maximum tax credit amounts are the tax credit amount for \$15,000 of PV, wind-energy and active solar-heating systems and \$7,000 of solar hot-water and geothermal systems.

F. INCENTIVE TIMEFRAME. The tax credit may be claimed in the tax year in which the qualifying renewable energy system is placed into service or the tax year in which the qualifying renewable energy system purchased, if the system is placed in service by April 1 of the following tax year. Unused tax credit may not be carried over.

G. MISCELLANEOUS.

44.05 Rhode Island state property tax exemption for residential solar property

A. GENERAL DESCRIPTION. Rhode Island provides a property tax exemption in the amount of 100% of the tax on residential solar property. *R.I. Gen. Laws §44-57-4(a)(6)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of residential solar property.

C. QUALIFYING ACTIVITY. Taxpayer must own residential solar property. Residential solar property includes photovoltaic (PV) systems, solar hot-water systems and active solar space-heating systems.

D. INCENTIVE AMOUNTS. The tax exemption amount is an amount to which the residential solar-energy system is assessed at not more than the value of a conventional heating system, a

conventional water-heating system or energy production capacity that otherwise could be necessary to install in a building.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

44.06 Rhode Island state property tax exemption for residential or manufacturing renewable energy resources

A. GENERAL DESCRIPTION. Rhode Island provides a property tax exemption in the amount of 100% of the tax on renewable energy resources uses in residential systems or employed by a manufacturer. *R.I. Gen. Laws §44-3-3(a)(48) and (49); R.I. Gen. Laws §39-26-5; H.B. 8354 (2016)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy resources. Taxpayer must either: (i) own the renewable energy resource in a residential system, or (ii) employ the renewable energy resource as a manufacturer.

1. A qualifying manufacturer is a person that uses any premises, room or place in it primarily for the purpose of transforming raw materials into a finished product for trade through any or all of the following operations: adapting, altering, finishing, making and ornamenting.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy resource property. Renewable energy resources are generation units in the NEPOOL control area using (1) direct solar radiation; (2) the wind; (3) movement or the latent heat of the ocean; (4) the heat of the earth; (5) small hydro facilities; (6) biomass facilities using eligible biomass fuels and maintaining compliance with current air permits; eligible biomass fuels may be co-fired with fossil fuels, provided that only the renewable energy fraction of production from multi-fuel facilities shall be considered eligible; or (7) fuel cells using the renewable resources referenced above in this section.

1. Waste-to-energy combustion of any sort or manner shall in no instance be considered eligible except for eligible biomass fuel which include: brush, stumps, lumber ends and trimmings, wood pallets, bark, wood chips, shavings, slash and other clean wood that is not mixed with other solid wastes; agricultural waste, food and vegetative material; energy crops; landfill methane; biogas; or neat biodiesel and other neat liquid fuels that are derived from such fuel source.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

Management in consultation with the Office of Energy Resources.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the land use change tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

44.07 Rhode Island state land use change tax exemption for farmland used for renewable energy systems.

A. GENERAL DESCRIPTION. Rhode Island provides a property tax exemption in the amount of 100% of the land use change tax on land withdrawn from classification for commercial renewable energy production. *R.I. Gen. Laws §44-27-10.1; H.B. 6095 (2017).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer transferors of farmlands classified in the farm, forest, or open-space program.

C. QUALIFYING ACTIVITY. Taxpayer must transfer no more than 20% of the total acreage of land that is actively devoted to agricultural or horticultural use to install a renewable energy system.

1. Any acreage used for a renewable-energy system that is designated for dual use under subsection (c) of this section shall not be included in the calculation of the twenty percent (20%) restriction.

2. Land that is actively devoted to agricultural or horticultural use shall be defined by rules and regulations established by the RI Department of Environmental

45. South Carolina State Tax Incentives for Renewable Energy and Energy Efficiency

45.01 South Carolina state income tax credit for solar energy, geothermal or small hydropower systems

A. GENERAL DESCRIPTION. South Carolina provides an income tax credit in the amount of 25% the cost of solar energy, geothermal and small hydropower systems. *S.C. Code Ann. §12-6-3587; §12-6-3775; South Carolina Information Letter 09-16, 09/09/2009; H.B. 3874 (2016); S.B. 329 (2019); S.B. 463 (2021).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers purchasing and installing a solar energy, geothermal or small hydropower system.

1. The tax credit, including any unused tax credit amount carried forward, may be passed through to the partners or members of Taxpayer and may be allocated among any of its partners or members on an annual basis including, an allocation of the entire tax credit or unused carryforward to any partner or member who was a member or partner at any time in the year in which the tax credit or unused carryforward is allocated.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install a solar energy, geothermal or small hydropower system property. Solar energy, geothermal or small hydropower system must be used for heating water, space heating, air cooling, energy-efficient daylighting, heat reclamation, energy-efficient demand response, or the generation of electricity in a building owned by the taxpayer. Solar energy property is any nonresidential solar energy equipment with a nameplate capacity of at least one thousand nine hundred kilowatts (1,900 kw AC) that uses solar radiation as a substitute for traditional energy for water heating, active space heating and cooling, passive heating, daylighting, generating electricity, distillation, desalination, detoxification, or the production of industrial or commercial process heat. The term also includes related

devices necessary for collecting, storing, exchanging, conditioning, or converting solar energy to other useful forms of energy. Geothermal machinery and equipment is machinery and equipment for use at the taxpayer's residence that either: (1) is a heat pump that uses the ground or groundwater as a thermal energy source to heat a structure or as a thermal energy sink to cool a structure; or (2) uses the internal heat of the earth as a substitute for traditional energy for water heating or active space heating or cooling. Small hydropower system is new generation capacity on a non-impoundment or on an existing impoundment that: (1) meets licensing standards as defined by the Federal Energy Regulatory Commission (FERC); (2) is a run-of-the-river facility with a capacity not to exceed 5MW; or (3) consists of a turbine in a pipeline or in an irrigation canal. Solar energy, geothermal or small hydropower system property includes all controls, tanks, pumps, heat exchangers, and other equipment used directly and exclusively for the solar-energy system. System property does not include any land or structural elements of the building, such as walls and roofs, or other equipment ordinarily contained in the structure.

1. Qualifying solar-thermal systems must be certified by the Solar Rating and Certification Corporation or a comparable entity endorsed by the SC Energy Office.
2. Qualifying geothermal machinery and equipment must meet or exceed applicable federal Energy Star requirements.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of solar energy system property and 25% of the cost of small hydropower system property.

E. INCENTIVE LIMITS. The maximum tax credit allowed to be claimed is \$3,500 for each facility or 50% of the taxpayer's tax liability for that taxable year, whichever is less.

F. INCENTIVE TIMEFRAME. The tax credit period for solar energy property is 5 years. Unused tax credit may be carried forward 10 years. The tax credit for geothermal machinery and equipment expires December 31, 2031.

G. MISCELLANEOUS.

45.02 South Carolina state corporate income tax credit for biomass energy systems

A. GENERAL DESCRIPTION. South Carolina provides an income tax credit in the amount of 25% of the cost of biomass energy systems. *S.C. Code Ann. §12-6-3620.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations purchasing and installing biomass energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and install a biomass energy system. Biomass energy systems are equipment used to create heat, power, steam, electricity or another form of energy for commercial use from a fuel consisting of at least 90% biomass resources. A biomass resource is noncommercial wood, by-products of wood processing, demolition debris containing wood, agricultural waste, animal waste, sewage, landfill gas, and other organic materials, not including fossil fuels.

1. Qualifying biomass wood resource does not include wood intended for the purpose of generating a profit.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of the biomass energy system.

1. Cost of the biomass energy system must be certified by the SC State Energy Office, in consultation with the SC Department of Agriculture and the SC Institute for Energy Studies.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$650,000. The maximum annual tax credit allowed to be claimed is 100% of Taxpayer's liability for that year.

F. INCENTIVE TIMEFRAME. Taxpayer must apply for the tax credit by January 31st of the year following the 18-month period in which the qualifying biomass energy system is placed in service. The SC State Energy Office must award the tax credit by March 1st of that year. Unused tax credit may be carried forward 15 years.

G. MISCELLANEOUS. The tax credit may be discontinued if the equipment ceases to use

biomass resources as its primary fuel source before the entire tax credit has been utilized.

45.03 South Carolina state corporate income tax credit for ethanol and biodiesel production facilities

A. GENERAL DESCRIPTION. South Carolina provides an income tax credit in the amount of \$0.20-0.30 per gallon of corn-based ethanol or soy-based biodiesel produced. *S.C. Code Ann. §12-6-3600(A)(1); H.B. 3649 (2008).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations owning corn-based ethanol or soy-based biodiesel production facilities.

1. Taxpayers must be certified by the SC Energy Office.

C. QUALIFYING ACTIVITY. Taxpayer must own ethanol or biodiesel production facilities. Ethanol facility is a plant or facility primarily engaged in the production of ethanol or ethyl alcohol derived from renewable and sustainable bioproducts used as a substitute for gasoline fuel. Biodiesel facility is a plant or facility primarily engaged in the production of plant or animal-based fuels used as a substitute for diesel fuel.

1. Qualifying facility must be in production for at least 25% of its name plate design capacity

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.20 per gallon of corn-based ethanol or soy-based biodiesel produced and \$0.30 per gallon of noncorn ethanol or nonsoy oil biodiesel produced. After December 31, 2016 the tax credit amount is \$0.075 per gallon of corn-based ethanol or soy-based biodiesel newly produced.

New production is production that results from a new facility, a facility that has not received tax credits before 2017, or the expansion of the capacity of an existing facility by at least 2 million gallons first placed into service after 2016.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amount is the amount for production of up to 25 million gallons and 125 million gallons for a 5-year period.

F. **INCENTIVE TIMEFRAME.** The tax credit period is 5 years. Taxpayer must apply for the tax credit by January 31st of the year following the 18-month period in which the qualifying production facility is placed in service. The tax credit expires December 31, 2016. Unused tax credit may be carried forward 10 years.

1. Taxpayer may claim the tax credit for the first 6 months of qualifying production in addition to qualifying production during its current taxable year.

G. **MISCELLANEOUS.**

45.04 South Carolina state corporate income tax credit for plug-in hybrid vehicles

A. **GENERAL DESCRIPTION.** South Carolina provides an income tax credit in the amount of \$2,000 for the in-state purchase or lease of plug-in hybrid vehicles. *S.C. Code Ann. §12-6-3376(A); H.B. 3059 (2012); New Plug-In Hybrid Vehicle Credit Information, S.C. Dept of Rev., 10/31/2014.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations purchasing or leasing plug-in hybrid vehicles.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase or lease of a plug-in hybrid vehicle. A plug-in hybrid vehicle is a vehicle that shares the same benefits as an internal combustion and electric engine with an all-electric range of at least 9 miles, has 4 or more wheels, draws propulsion using a traction battery, has at least 4 kilowatt hours of battery capacity and uses an external source of energy to recharge the battery.

D. **INCENTIVE AMOUNTS.** The tax credit amount is \$667 for a battery capacity of 4 kilowatt hours, with an additional \$111 for each additional kilowatt hour. The maximum tax credit amount is \$2,000 per plug-in hybrid vehicle.

E. **INCENTIVE LIMITS.** The statewide maximum annual tax credit amount is \$200,000.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2016. Unused tax credit may be carried forward 5 years.

G. **MISCELLANEOUS.**

45.05 South Carolina state corporate income tax credit for renewable fuel distribution, processing and dispensing property

A. **GENERAL DESCRIPTION.** South Carolina provides an income tax credit over 3 years in the amount of 25% of the cost of purchasing, constructing, or installing renewable fuel distribution, processing and dispensing property. *S.C. Code Ann. §12-6-3610(A); H.B. 3649 (2008).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations placing in service in South Carolina property for distributing, processing or dispensing renewable fuel.

1. Taxpayers must be approved by the SC Energy Office.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase, construct and install and place in service property for distributing, processing or dispensing renewable fuel. Renewable fuel is E70 or greater ethanol fuel dispensed at the retail level for use in motor vehicles and pure ethanol or biodiesel fuel dispensed by a distributor or facility that blends these nonpetroleum fuels with gasoline fuel or diesel fuel for use in motor vehicles. Property for distributing or dispensing renewable fuel includes pumps, storage tanks, and related equipment that is directly and exclusively used for distributing, dispensing, or storing renewable fuel.

1. Qualifying property for distributing or dispensing renewable fuel must be labeled for this purpose and be clearly identified as associated with renewable fuel.

2. Qualifying property for processing renewable fuel includes property used for intermediate steps such as milling, crushing,

and handling of feedstock, and the distillation and manufacturing of the final product.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of purchasing, constructing, or installing property for distributing or dispensing renewable fuel.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit must be taken over 3 years. The tax credit for processing must be taken over 7 years. Taxpayer must apply for the tax credit by January 31st of the year following the year in which the qualifying property is placed in service. The tax credit expires December 31, 2019. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS. The tax credit may be discontinued if within the 3 year period the property is disposed of or taken out of service and not replaced.

45.06 South Carolina state sales tax exemption for hydrogen and fuel cell equipment

A. GENERAL DESCRIPTION. South Carolina provides a sales tax exemption in the amount of 100% of the tax on hydrogen and fuel cell equipment. *S.C. Code Ann. §12-36-2120(71)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of hydrogen and fuel cell equipment.

C. QUALIFYING ACTIVITY. Taxpayer must purchase hydrogen and fuel cell equipment. Fuel cell is a device that directly or indirectly creates electricity using hydrogen (or hydrocarbon-rich fuel) and oxygen through an electro-chemical process. Hydrogen and fuel cell equipment is any device, equipment, or machinery: (1) operated by hydrogen or fuel cells; (2) used to generate, produce, or distribute hydrogen and designated specifically for hydrogen applications or for fuel cell applications; or (3) used predominantly for the manufacturing of, or research and development involving hydrogen or fuel cell technologies.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

45.07 South Carolina state personal income tax credit for energy efficient manufactured homes

A. GENERAL DESCRIPTION. South Carolina provides an income tax credit in the amount of \$750 for energy efficient manufactured homes. *S.C. Code Ann. §48-52-870; South Carolina Information Letter No. 19-21, 08/01/2019; S.B. 76 (2020)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer individuals purchasing energy efficient manufactured homes.

C. QUALIFYING ACTIVITY. Taxpayer must purchase an energy efficient manufactured homes. An energy efficient manufactured homes is: (1) a manufactured home designated by the U.S. Environmental Protection Agency and the U.S. Department of Energy as meeting or exceeding each agency's energy saving efficiency requirements; or (2) a manufactured home that has been designated as meeting or exceeding energy efficiency requirements under the ENERGY STAR program.

1. Qualifying energy efficient manufactured homes must be purchase from a retail dealership licensed by the SC Manufactured Housing Board.

2. Qualifying energy efficient manufactured homes must be used in South Carolina.

D. INCENTIVE AMOUNTS. The tax credit amount is \$750 per manufactured home.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit expires July 1, 2024.

G. MISCELLANEOUS.

45.08 South Carolina state sales tax exemption for energy efficient manufactured homes

A. GENERAL DESCRIPTION. South Carolina provides a sales tax exemption in the amount of 100% of the tax on energy efficient manufactured homes. *S.C. Code Ann. §12-36-2110; South Carolina Information Letter No. 19-21, 08/01/2019; S.B. 76 (2020).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of energy efficient manufactured homes.

C. QUALIFYING ACTIVITY. Taxpayer must purchase manufactured homes meeting energy efficiency standards. Efficiency standards are storm or double-pane glass windows, insulated or storm doors, and a minimum thermal resistance rating of the insulation of R-11 for walls, R-19 for floors, and R-30 for ceilings.

1. Qualifying efficiency standards include variations of the above if the total heat loss for the home does not exceed that calculated using the ASHRAE levels of R-11 for walls, R-19 for floors, and R-30 for ceilings.

2. Qualifying efficiency standards include designation by the US EPA and the US DOE energy saving efficiency requirements or ENERGY STAR program.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due in excess of \$300.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires July 1, 2024.

G. MISCELLANEOUS. The dealer selling the manufactured home must maintain records for 3 years on each manufactured home sold that meets the energy efficiency levels.

45.09 South Carolina state corporate income tax credit for plant and equipment for**clean energy manufacturing operations**

A. GENERAL DESCRIPTION. South Carolina provides an income tax credit in the amount of 10% of the qualifying investments in plant and equipment for clean energy manufacturing operations. *S.C. Code Ann. §12-6-3588; H.B. 4478 (2010); H.B. 3644 (2014).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations placing in service plant and equipment for clean energy manufacturing operations.

1. Taxpayers must be approved by the SC Energy Office.

C. QUALIFYING ACTIVITY. Taxpayer must purchase, construct and install and place in service plant and equipment for clean energy manufacturing operations. Clean energy manufacturing operations are manufacturers of systems and components that are used or useful in manufacturing clean energy equipment for the generation, storage, testing and research and development, and transmission or distribution of electricity from clean sources, including specialized packaging for the clean energy equipment manufactured at the facility.

1. Clean energy systems are solar, wind, geothermal, or other clean energy uses.

2. Clean energy manufacturing operation must invest at least \$50 million in new qualifying plant and equipment.

3. Clean energy manufacturing operation must create 1.0 full-time jobs that pay at least 125% of the state average annual median wage for every \$500,000 of capital investment.

4. Manufacturing is fabricating, producing, or manufacturing raw or unprepared materials into usable products, imparting new forms, qualities, properties, and combinations. Manufacturing does not include generating electricity for off-site consumption.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of purchasing, constructing, or installing property for distributing or dispensing clean fuel.

E. **INCENTIVE LIMITS.** The annual maximum tax credit amount is \$500,000. The aggregate maximum tax credit amount is \$5 million.

F. **INCENTIVE TIMEFRAME.** Unused tax credit may be carried forward 15 years. The tax credit expires December 31, 2020. The tax credit is not refundable.

G. **MISCELLANEOUS.**

45.10 South Carolina state corporate income tax credit for alternative motor vehicles

A. **GENERAL DESCRIPTION.** South Carolina provides an income tax credit in the amount of 20% of the federal tax credit allowed for alternative motor vehicles. *S.C. Code Ann. §12-6-3600; S.C. Code Ann. §12-6-3377.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer who is eligible for and claims a federal alternative motor vehicle tax credit.

C. **QUALIFYING ACTIVITY.** Taxpayer must be eligible for and claim the new qualified fuel cell motor vehicle credit, the new advanced lean burn technology motor vehicle credit, the new qualified hybrid motor vehicle credit based on the combined city/highway metric or standard set by federal Internal Revenue Code Section 30B, or the new qualified alternative fuel motor vehicle credit allowed pursuant to Internal Revenue Code Section 30B.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 20% of the federal credit allowed pursuant to IRC §30B for alternative motor vehicles.

1. The tax credit amount is calculated without regard to the phaseout period limits of Internal Revenue Code Section 30(B)(f). The provisions of Internal Revenue Code Section 30(B) are deemed permanent law.

E. **INCENTIVE LIMITS.** The tax credit is not refundable.

F. **INCENTIVE TIMEFRAME.** Unused tax credit may be carried forward 5 years.

G. **MISCELLANEOUS.**

45.11 South Carolina state income tax credit for solar energy property on contaminated sites

A. **GENERAL DESCRIPTION.** South Carolina provides an income tax credit in the amount of 25% the cost of solar energy property on contaminated sites. *S.C. Code Ann. §12-6-3770; S.C. Code Ann. §12-6-3775; H.B. 3874 (2016); S. B. 901 (2022).*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayers constructing, purchasing or leasing a solar energy property on contaminated sites.

The tax credit may be passed through to the partners or members of Taxpayer and may be allocated among any of Taxpayer's partners or members on an annual basis including.

C. **QUALIFYING ACTIVITY.** Taxpayer must construct, purchase or lease a solar energy property on contaminated sites. Solar energy property is any nonresidential solar energy equipment with a nameplate capacity of at least one thousand nine hundred kilowatts (1,900 kw AC) that uses solar radiation as a substitute for traditional energy for water heating, active space heating and cooling, passive heating, daylighting, generating electricity, distillation, desalination, detoxification, or the production of industrial or commercial process heat.

1. Qualifying solar energy property includes related devices necessary for collecting, storing, exchanging, conditioning, or converting solar energy to other useful forms of energy.

2. Qualifying solar energy property must be located on (i) the Environmental Protection Agency's National Priority List; (ii) the Environmental Protection Agency's National Priority List Equivalent Sites; (iii) a list of related removal actions, as certified by the Department of Health and Environmental Control; (iv) land that is subject to a Voluntary Cleanup Contract with the Department of

Health and Environmental Control as of December 31, 2017, or to corrective action under the Federal Resource Conservation and Recovery Act of 1976; or (v) land that is owned by the Pinewood Site Custodial Trust.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of solar energy property. The tax credit is not allowed to the extent the cost of the solar energy property is provided by public funds.

1. Public funds does not include federal grants or tax credits.

E. INCENTIVE LIMITS. The maximum tax credit allowed to be claimed is \$2.5 million for each facility.

F. INCENTIVE TIMEFRAME. The tax credit is taken over a 5-year period. Unused tax credit may be carried forward 5 years. The tax credit expires December 31, 2024.

G. MISCELLANEOUS. The tax credit may not be taken by taxpayer claiming any other state tax credit on the same property.

45.12 South Carolina state corporate income tax credit for alternative fuel distribution, processing and dispensing property

A. GENERAL DESCRIPTION. South Carolina provides an income tax credit over 3 years in the amount of 25% of the cost of purchasing, constructing, or installing alternative fuel distribution, storing and dispensing property. *S.C. Code Ann. §12-6-3695; S.B. 1122 (2016)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations placing in service in South Carolina property for distributing, storing or dispensing alternative fuel.

1. Taxpayer may include the State or any agency or instrumentality, authority, or political subdivision, including municipalities.
2. Taxpayer government agencies may transfer the tax credit to a taxpayer.

C. QUALIFYING ACTIVITY. Taxpayer must purchase, construct and install and place in service property for distributing, storing or dispensing alternative fuel. Alternative fuel is liquefied petroleum gas, liquefied natural gas, compressed natural gas product, or a combination of liquefied petroleum gas and a compressed natural gas product used in an internal combustion engine or motor to propel any form of vehicle, machine, or mechanical contrivance. Property for distributing, storing or dispensing alternative fuel includes pumps, compressors, storage tanks, and related equipment that is directly and exclusively used for distribution, dispensing, or storing alternative fuel. The equipment used to store, distribute, or dispense alternative fuel must be labeled for this purpose and clearly identified as associated with alternative fuel.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the cost of purchasing, constructing, or installing property for distributing, storing or dispensing alternative fuel.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit must be taken over 3 years. Taxpayer must apply for the tax credit by January 31st of the year following the year in which the qualifying property is placed in service. The tax credit expires December 31, 2025. Unused tax credit may be carried forward 10 years.

G. MISCELLANEOUS. The tax credit may be discontinued if within the 3 year period the property is disposed of or taken out of service and not replaced.

45.13 South Carolina state property tax exemption for renewable energy resource properties

A. GENERAL DESCRIPTION. South Dakota provides a property tax exemption in the amount of 100% of property tax due for renewable energy resource properties. *S.C. Code Ann. §12-37-220(B)(53); H.B. 3354 (2021)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of renewable energy resource properties.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy resource properties. A renewable energy resource is solar photovoltaic and solar thermal resources, wind resources, hydroelectric resources, geothermal resources, tidal and wave energy resources, recycling resources, hydrogen fuel derived from renewable resources, combined heat and power derived from renewable resources, and biomass resources.

1. Qualifying property must have a nameplate capacity of and operating at no greater than 20 kilowatts, as measured in alternating current.

2. Qualifying property includes all components that enhance the operational characteristics of the generating equipment, such as an advanced inverter or battery storage device, and equipment required to meet all applicable safety, performance, interconnection, and reliability standards established by the commission, the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, the Federal Energy Regulatory Commission, and any local governing authorities.

D. INCENTIVE AMOUNTS. The tax exemption amount is 10% of the tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

46. South Dakota State Tax Incentives for Renewable Energy and Energy Efficiency

46.01 South Dakota state property tax assessment credit for renewable energy systems

A. GENERAL DESCRIPTION. South Dakota provides a property tax assessment credit in the amount of 100% of the value of residential renewable energy systems and 50% of the value of commercial renewable energy systems. *S.D. Codified Laws §10-6-35.8 et seq.*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer owners of renewable energy system property.

1. Taxpayer may be a purchaser of a newly constructed home.
2. Taxpayer must be certified by the county director of equalization of the county in which the property is located and the SD Department of Revenue and Regulation.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy systems on residential or commercial property. Renewable resource energy system is the equipment which produces energy from a renewable resource for on-site consumption, including a passive solar energy system. Renewable resources is a relatively non-depleting source of energy, including, but not limited to the sun, wind, and geothermal and biomass sources.

1. Qualifying renewable energy systems does not include systems that produce energy for resale unless the system is a biomass renewable resource energy system using an anaerobic digester.

D. INCENTIVE AMOUNTS. For residential systems, the tax assessment credit is 100% of property tax due or the actual installed cost of the system. For commercial systems, the assessment credit is 50% of the installed cost of the system.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The Taxpayer must apply for the tax exemption by December 10th of the first year of the tax credit or the year of an ownership transfer or change in use. The tax exemption period is 6 years, with 25% reduction in the tax exemption amount in each of the last 3 years.

G. MISCELLANEOUS.

46.02 South Dakota state property tax alternative payment for commercial wind energy facilities

A. GENERAL DESCRIPTION. South Dakota provides a property tax alternative payment in the amount of \$3 per kilowatt (kW) of capacity plus a 2% annual tax and, a tax rebate in an amount up to 90% on the gross receipts for commercial wind energy facilities. *S.D. Codified Laws §10-35-16 et seq.*

B. ELIGIBLE TAXPAYERS. The tax alternative payment is available to Taxpayer owner or lessee of large commercial wind energy facilities.

1. Taxpayer may be any person, corporation, limited liability company, association, company, partnership, political subdivision, rural electric cooperative, or any group or combination acting as a unit.

C. QUALIFYING ACTIVITY. Taxpayer must own or lease a large commercial wind energy facility. A wind energy facility includes property used or constructed to interconnect individual wind turbines within a wind farm into a common project and the collector system. Large commercial wind energy facility includes only facilities producing electricity for commercial sale and with a minimum capacity of 5 megawatts (MW).

1. Large commercial wind energy facility may partially include the construction of transmission lines in South Dakota that serve a qualifying facility.

D. INCENTIVE AMOUNTS. The tax alternative payment amount is \$3 per kilowatt (kW) of capacity plus a 2% annual tax on the gross receipts. The gross receipts is the number of

kilowatt-hours (kWh) produced multiplied by a base electricity rate of \$0.0475/kWh (2008). The base rate increases by 2.5% annually. The maximum annual tax rebate allowed to be claimed is 90% of the gross receipts tax for the first 5 years and 50% of the gross receipts tax for the next 5 years.

E. INCENTIVE LIMITS. The maximum tax rebate amount is 50% of the combined cost of the transmission lines and wind farm collector system. Up to 80% of the rebate may be issued in the form of a tax credit in lieu of full payment of the gross receipts tax.

F. INCENTIVE TIMEFRAME. The tax rebate period is 10 years.

G. MISCELLANEOUS.

46.03 South Dakota state property tax exemption for alternative fuel storage and dispensing property

A. GENERAL DESCRIPTION. South Dakota provides a property tax exemption in the amount of 100% of the tax on alternative fuel storage and dispensing property. *S.D. Codified Laws §10-4-34; S.D. Codified Laws §10-47A-1.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of alternative fuel storage and dispensing property.

C. QUALIFYING ACTIVITY. Taxpayer must own alternative fuel storage and dispensing property.

1. Alternative fuel storage and dispensing property may include equipment, buildings, and structures attached to real property and used exclusively for the storing, dispensing, and retail sale of alternative fuels for the operation of motor vehicles.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 5 years.

G. MISCELLANEOUS.

46.04 South Dakota state property tax exemption for small renewable energy facilities

A. GENERAL DESCRIPTION. South Dakota provides a property tax exemption in the amount of 70% of the project costs of small renewable energy facilities. *S.D. Codified Laws §10-4-44; S.B. 58 (2010).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of small renewable energy facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own renewable energy facilities that generate up to 5 megawatts of nameplate capacity. A renewable energy facility is a facility that uses a renewable resource as its energy source for the purpose of producing electricity or energy. A renewable resource is a resource that generates electricity or energy from facilities using one or more of the following sources: (1) wind that uses wind as the source of energy to produce electricity; (2) solar that uses the sun as the source of energy to produce electricity or energy; (3) hydroelectric that uses water as the source of energy to produce electricity; (4) hydrogen that is generated from one of the sources listed in this section; (5) biomass that uses agricultural crops and agricultural wastes and residues, wood and wood wastes and residues, animal and other degradable organic wastes, municipal solid waste, or landfill gas as the fuel to produce electricity; or (6) geothermal that uses energy contained in heat that continuously flows outward from the earth as the source of energy to produce electricity or energy.

D. INCENTIVE AMOUNTS. The tax exemption amount is the greater of the first \$50,000 in project costs or 70% of all project costs.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

1. The tax exemption period for qualifying geothermal renewable energy facilities that produce energy, but not electricity, is 4 years

for residential geothermal renewable energy facilities and 3 years for commercial geothermal renewable energy facilities.

G. MISCELLANEOUS.

47. Tennessee State Tax Incentives for Renewable Energy and Energy Efficiency

47.01 Tennessee state sales and use tax credit for manufacturers of clean energy technologies

A. GENERAL DESCRIPTION. Tennessee provides a sales and use tax credit in the amount of 99.5% of tax on manufacturers of clean energy technologies. *Tenn. Code Ann. §67-6-232; S.B. 2300 (2009)*.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer manufacturers of clean energy technologies purchasing property.

1. Taxpayer must make a minimum \$100 million investment, create and maintain 50 full-time jobs for 10 years that pay 150% above the Tennessee occupational average wage.
2. Taxpayer must be certified by the TN Department of Revenue and the TN Department of Economic and Community Development.
3. Taxpayer may not be a business engaged in the development and construction of coal fired power plants.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture clean energy technologies and purchase qualifying property. Clean energy technology is technology resulting in energy efficiency, technology used to generate energy from biomass, geothermal, hydrogen, hydropower, landfill gas, nuclear, solar, and wind sources, and technology that is designed to result in the development of advanced coal through carbon capture and sequestration or otherwise any other manner that significantly reduces CO2 emissions per unit of energy generated. Qualifying property includes building materials, machinery, and equipment used in the qualifying facility and purchased (or leased) during the investment period.

1. Taxpayer must establishing qualifying clean energy technology facilities meeting a minimum investment. Qualifying minimum investment is \$100 million or more in a

building or buildings, either newly constructed, expanded, or remodeled along with the creation of not less than 50 full-time employee positions created primarily for the support of the operations at the qualifying facility during the investment period with average wages or salaries equal to or greater than 150% of Tennessee's average occupational wage.

2. Qualifying tangible personal property does not include any payments with respect to leases of qualifying tangible personal property that extend beyond the investment period.

3. Qualifying tangible personal property does not include any materials, machinery, or equipment that replaces tangible personal property that previously generated tax credit.

D. INCENTIVE AMOUNTS. The tax credit amount is 99.5% of sales or use taxes paid.

E. INCENTIVE LIMITS. The maximum tax credit allowed to be claimed is the excess of the tax due and the minimum state sales or use taxes due on the rate of 0.5%.

F. INCENTIVE TIMEFRAME. The maximum investment period is 8 years.

G. MISCELLANEOUS. The tax credit may be recaptured if the qualifying facility does not maintain at least 50 qualifying full-time employee positions, or is not utilized to support an emerging industry for a period of 10 years.

47.02 Tennessee state property tax exemption for green energy production facilities

A. GENERAL DESCRIPTION. Tennessee provides a property tax exemption in the amount of 67-87.5% of the tax on green energy production facilities. *Tenn. Code Ann. §67-5-601; Tenn. Code Ann. §67-4-2004; S.B.1000 (2013); S.B.2350 (2022)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer public utilities, businesses or industrial facilities owning green energy production facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own commercial and industrial property, or public utility property, that is a green energy production facility. A green energy production facility is a facility certified by the TN Department of Environment and Conservation as producing electricity for storage, use and consumption off the premises using clean energy technology. Clean energy technology is technology used to generate energy from geothermal, hydrogen, solar, and wind sources, facilities which utilize natural gas in a combined heat and power configuration (CHP) for production of heat and electricity for consumption onsite, and alternative motor vehicle fueling stations that utilizes natural gas in compressed or liquid form for the purpose of fueling motor vehicles and that is projected to displace more than 6,000 gallons of petroleum annually.

D. INCENTIVE AMOUNTS. The tax exemption amount is 70% of the property tax due. The tax exemption amount is 67% of the property tax due for wind property and 87.5% of the property tax due for solar property.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

47.03 Tennessee state franchise tax exemption for green energy production facilities

A. GENERAL DESCRIPTION. Tennessee provides a franchise tax exemption in the amount of 100% of the tax on green energy production facilities. *Tenn. Code Ann. §67-4-2108(a)(5); Tenn. Code Ann. §67-4-2004.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer public utilities, businesses or industrial facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own commercial and industrial property, or public utility property, that is a green energy production facility. A green energy production facility is a facility certified by the TN Department of Environment and Conservation as producing or storing

electricity for use and consumption off the premises using clean energy technology. Clean energy technology is technology used to generate energy from geothermal, hydrogen, solar, and wind sources, and facilities which utilize natural gas in a combined heat and power configuration (CHP) for production of heat and electricity for consumption onsite, and alternative motor vehicle fueling stations that utilizes natural gas in compressed or liquid form for the purpose of fueling motor vehicles and that is projected to displace more than 6,000 gallons of petroleum annually.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the franchise tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

48. Texas State Tax Incentives for Renewable Energy and Energy Efficiency

48.01 Texas state property tax exemption for renewable energy systems

A. GENERAL DESCRIPTION. Texas provides a property tax exemption in the amount of 100% of the tax the appraised value of property that arises from the installation or construction of a renewable energy systems. *Tex. Tax Code §11.27; Form 50-123, "Exemption Application for Solar or Wind-Powered Energy Devices"; H.B. 706 (2015); Sunnova AP5 Conduit LLC v. Hunt County Appraisal District, Tex. Ct. App. (5th Dist.), No. 05-18-00995, 08/19/2019.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners property which value is increased by the installation of solar or wind-powered energy device property.

1. The tax exemption applies to the property until it changes ownership or the taxpayer's qualification for the exemption changes.

C. QUALIFYING ACTIVITY. Taxpayer must own property which value is increased by the installation of a solar or wind-powered energy device. Solar or wind-powered energy device must be primarily for the production and distribution of thermal, mechanical, or electrical energy for on-site use, or devices used to store that energy. Solar energy device is an apparatus designed or adapted to convert the radiant energy from the sun, including energy imparted to plants through photosynthesis employing the bioconversion processes of anaerobic digestion, gasification, pyrolysis, or fermentation, but not including direct combustion, into thermal, mechanical, or electrical energy; to store the converted energy, either in the form to which originally converted or another form; or to distribute radiant solar energy or the energy to which the radiant solar energy is converted. Wind-powered energy device is an apparatus designed or adapted to convert the energy available in the wind into thermal, mechanical, or electrical energy; to store the converted energy, either in the

form to which originally converted or another form; or to distribute the converted energy.

1. Qualifying solar energy devices include a range of biomass technologies.

INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due that arises from the installation or construction of qualifying solar or wind-powered energy device.

D. INCENTIVE LIMITS

E. INCENTIVE TIMEFRAME

F. MISCELLANEOUS

48.02 Texas state franchise tax deduction for solar and wind energy devices

A. GENERAL DESCRIPTION. Texas provides a franchise tax deduction in the amount of 10% of the cost of solar and wind energy devices. *Tex. Tax Code §171.107; Texas Comptroller's Letter No. 200901463L.*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer owners of solar and wind energy device.

1. Taxpayer must file with the TX Comptroller an amortization schedule showing the period in which a deduction is to be made.

C. QUALIFYING ACTIVITY. Taxpayer must own a solar energy device. Solar energy devices are systems or series of mechanisms designed primarily to provide heating or cooling or to produce electrical or mechanical power by collecting and transferring solar-generated energy. Solar energy devices include mechanical or chemical devices that has the ability to store solar-generated energy for use in heating or cooling or in the production of power. Solar energy devices include wind energy technology.

1. Qualifying solar energy device must be amortized for a period of at least 60 months.

D. INCENTIVE AMOUNTS. The tax deduction amount is 10% of the amortized cost of the system.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax deduction may not be carried forward.

G. MISCELLANEOUS.

48.03 Texas state franchise tax exemption for solar and wind energy businesses

A. GENERAL DESCRIPTION. Texas provides a franchise tax exemption in the amount of 100% of the tax on solar and wind energy businesses. *Tex. Tax Code §171.056; Tex. Tax Code Ann. §171.088.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer corporations manufacturing, selling, or installing solar energy devices.

1. A Taxpayer that is not a corporation but that, because of its activities, would qualify for this exemption if it were a corporation, qualifies for the exemption and is exempt from the tax in the same manner and under the same conditions as a corporation.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture, sell, or install solar energy devices. Solar energy device is a system or series of mechanisms designed primarily to provide heating or cooling or to produce electrical or mechanical power by collecting and transferring solar-generated energy. Solar energy device includes a mechanical or chemical device that has the ability to store solar-generated energy for use in heating or cooling or in the production of power. Solar energy device includes wind energy technology.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the franchise tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME.

G. MISCELLANEOUS.

48.04 Texas state property tax financing option for distributed generation renewable energy and energy-efficient technologies

A. GENERAL DESCRIPTION. Texas provides a property tax financing option for municipalities for renewable-energy systems and energy-efficient technologies. *Tex. Local Gov't. Code Ann. §376.*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners financing eligible distributed generation renewable energy sources and energy-efficient technologies.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance distributed generation renewable energy sources and energy-efficient technologies.

1. Distributed generation renewable energy sources and energy-efficient technologies do not include facilities for undeveloped lots or lots undergoing development at the time of the assessment.
2. Distributed generation renewable energy sources and energy-efficient technologies do not include the purchase or installation of appliances not permanently fixed to real property.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

48.05 Texas state sales tax exemption for energy-efficient Energy Star products

A. GENERAL DESCRIPTION. Texas provides a sales tax exemption in the amount of 100% of the tax on energy-efficient products. *Tex. Tax Code §151.333; Tex. Admin. Code 34 §3.369(b); Texas Tax Policy News No. 4, 04/01/2015; S.B. 1356 (2015); Texas Comptroller of Public Accounts,*

03/01/2022; News Release, Texas Comptroller of Public Accounts, 05/17/2023.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of Energy Star energy-efficient products.

C. QUALIFYING ACTIVITY. Taxpayer must purchase of Energy Star energy-efficient products, WaterSense products or water-conserving products. Energy Star energy-efficient products include air conditioners with a sales price of less than \$6,000, refrigerators with a sales price of less than \$2,000, clothes washers, dishwashers, dehumidifiers, ceiling fans, incandescent or fluorescent light bulbs, and programmable thermostats. Water conserving products are personal property that is used on private residential property and is not used for business or trade, when used or planted in an outdoor residential property, may result in water conservation or groundwater retention, water table recharge, or a decrease in ambient air temperature that limits water evaporation. Water conserving products include a soaker or drip-irrigation hose, a moisture control for a sprinkler or irrigation system, mulch, a rain barrel or an alternative rain and moisture collection system, a permeable ground cover surface that allows water to reach underground basins, aquifers, or water collection points.

1. Energy Star energy-efficient products include installation and delivery charges for these products.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is the Saturday preceding the last Monday in May (Memorial Day) and ending on that same Monday.

G. MISCELLANEOUS.

49. Utah State Tax Incentives for Renewable Energy and Energy Efficiency

49.01 Utah state income tax credit for renewable energy systems

A. GENERAL DESCRIPTION. Utah provides an income tax credit in amounts ranging from 10-25% of the cost of renewable energy systems. Utah Code Ann. §59-7-614; Utah Code Ann. §59-7-614; Utah Code Ann. §59-10-1014(2)(a); Utah Code Ann. §59-10-1106(2)(a); Utah Code Ann. §59-10-1024; §63M-4-503 Utah Admin. R. R638-2; Utah Admin. R. R362-1-1 et seq.; Utah Admin. R. R357-9; S.B. 14 (2015); H.B. 23 (2017); S.B. 141 (2018).

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers installing residential or commercial renewable energy systems.

1. Taxpayer must be certified by the UT Office of Energy Development.
2. Taxpayer may be a non-business entity that leases a residential renewable energy system and may use the tax credit for no more than 7 years from the initiation of the lease.
3. Taxpayer may be a business entity that leases a commercial renewable energy system.
4. Taxpayer may be a builder for the installation of a renewable energy system on a residential unit.

C. QUALIFYING ACTIVITY. Taxpayer must install a residential or commercial renewable energy system. Residential renewable energy systems include active and passive solar thermal systems; solar electric systems; wind turbines; hydro (water) energy; geothermal heat pumps; direct-use geothermal; and biomass. Commercial renewable energy system is any active solar, passive solar, geothermal electricity, direct-use geothermal, geothermal heat-pump system, wind, hydro-energy, or biomass system used to supply energy to a commercial unit or as a commercial enterprise. Commercial renewable energy system may be used to supply energy to a commercial unit or as a commercial enterprise selling the energy. Commercial renewable energy systems include active and passive solar thermal systems; solar

electric systems; wind turbines; hydro (water) energy; geothermal heat pumps; direct-use geothermal; and geothermal electricity; and biomass systems. Photovoltaic system is an active solar system that generates electricity from sunlight.

1. Renewable energy system includes biomass systems that produce either fuel or electricity.
2. Renewable energy system does not include biomass heating systems.
3. Qualifying wind turbine must be certified by Small Wind Certification Council.

D. INCENTIVE AMOUNTS. The tax credit amount for residential systems is 25% of the reasonable installed system costs. The tax credit amount for commercial systems is 10% of the reasonable installed system costs with total capacity of less than 660 kW.

1. The eligible cost of a geothermal heat pump system is considered to be no higher than \$6,500 per ton of output capacity for residential systems and \$5,500 per ton of output capacity for commercial systems.

E. INCENTIVE LIMITS. The maximum tax credit amount for residential systems, other than a photovoltaic system, is \$2,000 per residential unit in 2017, \$1,600 per residential unit in 2018, \$1,200 per residential unit in 2019, \$800 per residential unit in 2020 and \$400 per residential unit in 2021. The maximum tax credit amount for residential systems that is a photovoltaic system is \$2,000 per residential unit in 2017, \$1,600 per residential unit in 2018-2020, \$1,200 per residential unit in 2021, \$800 per residential unit in 2022 and \$400 per residential unit in 2023. The maximum tax credit amount for commercial systems that is not wind, geothermal electricity, or biomass equipment capable of producing a total of 660 or more kilowatts of electricity, is \$50,000 per commercial unit. The tax credit expires in 2023.

F. INCENTIVE TIMEFRAME. Unused tax credit may be carried forward 4 years. A Taxpayer non-business entity that leases a residential system may use the tax credit for no more than 7 years from the initiation of the lease.

1. The tax credit is refundable for commercial energy systems that do not use wind, geothermal electricity, solar, or biomass equipment capable of producing a total of 660 or more kilowatts of electricity or solar equipment capable of producing 2,000 or more kilowatts of electricity.

G. MISCELLANEOUS. The tax credit may not be claimed or carried forward in a taxable year in which the taxpayer claims or carries forward an alternative energy development tax credit.

49.02 Utah state income tax credit for commercial renewable energy production

A. GENERAL DESCRIPTION. Utah provides an income tax credit in amount of \$0.0035 per kWh of electricity produced and sold from commercial renewable energy systems. *Utah Code Ann. §59-7-614(2)(c); §63M-4-503; UAC R638-2; Utah Admin. R. R362-1-1 et seq; R357-9; S.B. 224 (2014).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers producing and selling electricity from a commercial renewable energy system.

1. Taxpayers must be certified by the UT State Energy Program.
2. Taxpayer may be a business entity that leases a commercial renewable energy system.

C. QUALIFYING ACTIVITY. Taxpayer must produce and sell electricity from a commercial renewable energy systems. Commercial renewable energy system is wind, geothermal electricity, or biomass equipment capable of producing a total of 660 or more kilowatts of electricity.

1. Renewable energy system includes biomass systems that produce either fuel or electricity.
2. Renewable energy system does not include biomass heating systems.
3. Commercial renewable energy system may be used to supply energy to a commercial

unit or as a commercial enterprise selling the energy.

D. INCENTIVE AMOUNTS. The tax credit amount for commercial wind, geothermal electric, and biomass systems with a total capacity of 660 kW or greater is \$0.0035/kWh, for 4 years.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit is available January 1, 2015. The tax credit period is 4 years. The tax credit may be refundable.

G. MISCELLANEOUS. The tax credit is not available if the business entity claims a tax credit under Utah Code Ann. §59-7-614(2)(b).

49.03 Utah state sales tax exemption for renewable resource electricity generation equipment

A. GENERAL DESCRIPTION. Utah provides a sales tax exemption in the amount of 100% of the tax on renewable resource electricity generation equipment. *Utah Code Ann. §59-12-104(55), (75); Utah Code Ann. §54-15-102.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of equipment used to generate electricity from renewable resources.

C. QUALIFYING ACTIVITY. Taxpayer must purchase or lease equipment used to generate electricity from renewable resources. Renewable resources include wind, solar, fuel cell, biomass, landfill gas, anaerobic digestion, hydroelectricity and geothermal energy. Qualifying equipment includes wind turbines, generating equipment, control and monitoring systems, power lines, substation equipment, lighting, fencing, pipes, and other equipment for locating power lines and poles. Fuel cell is a device in which the energy of a reaction between a fuel and an oxidant is converted directly and continuously into electrical energy.

1. Qualifying equipment must use renewable energy to produce electricity and must have a minimum capacity of 20 kW.

2. Qualifying equipment includes equipment that expands an existing facility by 1 or more megawatt (MW).
3. Qualifying equipment has an economic life of 5 or more years.
4. Qualifying equipment does not include tools and other equipment used in construction of a new facility, contracted services required for construction, and routine maintenance activities and equipment utilized or acquired after the project is operational.
5. Qualifying leases must be made for at least 7 years.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2019.

G. MISCELLANEOUS.

49.04 Utah state income tax credit for solar units purchased from qualifying local political subdivisions

A. GENERAL DESCRIPTION. Utah provides an income tax credit in the amount of 25% of the purchase cost of solar units from qualifying local political subdivisions. *Utah Code Ann. §59-7-614.3; Utah Code Ann. §59-10-1024.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasers from qualifying local political subdivisions of solar units.

C. QUALIFYING ACTIVITY. Taxpayer must purchase solar units from active solar system owned by a qualifying local political subdivisions that furnishes the solar units to one or more residential units or for the benefit of one or more residential units. Active solar system is a system of equipment capable of collecting and converting incident solar radiation into thermal, mechanical, or electrical energy, and transferring these forms of energy by a separate apparatus to storage or to the point of use; and includes water heating, space heating or cooling, and electrical or mechanical energy generation.

1. Qualifying political subdivisions are cities or towns in the state, interlocal entities, or special service districts.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% the purchase cost of solar units.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$2,000.

F. INCENTIVE TIMEFRAME. The tax credit expired October 1, 2012. Unused tax credit may be carried forward 4 years.

G. MISCELLANEOUS.

49.05 Utah state income tax credit for cleaner burning fuel vehicles

A. GENERAL DESCRIPTION. Utah provides an income tax credit in the amount of 35% of the cost of a new qualifying electric vehicle, a new qualifying plug-in hybrid vehicle, a new vehicle fueled by natural gas or propane, or a new qualifying electric motorcycle. *Utah Code Ann. §59-7-605; Utah Code Ann. §59-7-618; Utah Code Ann. §59-10-1009; Utah Code Ann. §59-10-1033; Utah Admin. Code §§R307-121; Notice, Utah Division of Air Quality, 10/01/2008; H.B. 70 (2010); H.B. 74 (2014); S.B. 156 (2015); H.B. 15 (2015); H.B. 406 (2015); H.B. 87 (2016).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers purchasing or leasing new motor vehicles fueled by cleaner burning fuels.

1. Taxpayer must be certified by the Air Quality Board.

C. QUALIFYING ACTIVITY. Taxpayer must purchase or lease a new qualifying electric vehicle, a new qualifying plug-in hybrid vehicle, a new vehicle fueled by natural gas or propane, a new qualifying electric motorcycle or a new qualifying heavy duty vehicle.

1. Qualifying retrofits must be certified by the U.S. Environmental Protection Agency or by a state whose certification standards are recognized by the Utah Air Quality Board.

2. Qualifying plug-in hybrid vehicle must have a battery capacity that as a battery capacity that meets or exceeds the battery capacity described in IRC Section 30D(b)(3).

3. Qualifying heavy duty vehicle is a commercial category 7 or 8 vehicle that has never been titled or registered and has been driven less than 7,500 miles and is fueled by natural gas. Fifty percent (50%) of the miles that the heavy duty vehicle will travel annually must be within the state.

4. Qualifying electric vehicles must draw propulsion energy from a battery with at least 10 kilowatt hours of capacity.

D. INCENTIVE AMOUNTS. The tax credit amount is 35% the cost of a new qualifying electric vehicle, a new qualifying plug-in hybrid vehicle, a new vehicle fueled by natural gas or propane, or a new qualifying electric motorcycle. The tax credit amount for leasing new qualifying vehicles is based on a percentage of depreciated value of the vehicle.

1. The tax credit amount for a qualifying heavy duty vehicle is \$25,000 for 2015-2017, \$20,000 for 2018, \$18,000 for 2019 and \$15,000 for 2020.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$1,500 per new qualifying electric vehicle or new vehicle fueled by natural gas or propane, \$1,000 per new qualifying plug-in hybrid vehicle and \$750 per new qualifying electric motorcycle. The maximum tax credit amount for special mobile equipment engine is \$1,000 per engine.

1. The maximum aggregate annual tax credit amount for qualifying heavy duty vehicles is \$500,000.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2016. Unused tax credit may be carried forward 5 years.

1. The tax credit for qualifying heavy duty vehicles expires June 30, 2020.

G. MISCELLANEOUS.

49.06 Utah state sales tax exemption for renewable resource electricity

A. GENERAL DESCRIPTION. Utah provides a sales tax exemption in the amount of 100% of the tax on renewable resource electricity. *Utah Code Ann. §§10-1-304; Utah Code Ann. §59-12-104(47); H.B. 242 (2016).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer producers and sellers of electricity from renewable resources.

C. QUALIFYING ACTIVITY. Taxpayer must purchase and sell electricity from renewable resources. Qualifying sales and use must be made under a retail tariff adopted by the Public Service Commission. Renewable resources include wind, solar, biomass, landfill gas, anaerobic digestion, hydroelectricity and geothermal energy.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due. For residential use customers, the tax exemption applies only to the portion of the tariff rate a customer pays under the tariff tax that exceeds the tariff rate that the customer would have paid absent the tariff.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2019.

G. MISCELLANEOUS.

49.07 Utah state corporate income tax credit for alternative energy projects

A. GENERAL DESCRIPTION. Utah provides an income tax credit in the amount of 75% of the new state revenues generated by an alternative energy project. *Utah Code Ann. §59-10-1029; Utah Code Ann. §63M-4-501; H.B. 528 (2023).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations establishing an alternative energy project.

1. Taxpayer must be certified by the UT Office of Energy Development.
2. Taxpayer may be a pass-through entity.

C. **QUALIFYING ACTIVITY.** Taxpayer must establish an alternative energy project. Alternative energy project is a project that involves a new or expanding operation and either utility-scale alternative energy generation or the extraction of alternative fuels.

1. Alternative energy projects must have at least 2 MW of electricity or 1,000 crude oil equivalent barrels per day.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 75% of the new state revenues generated by an alternative energy project.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax credit period is the lesser of 20 years or the project's economic life. Unused tax credit may be carried forward 7 years.

G. **MISCELLANEOUS.** The tax credit may not be claimed or carried forward in a taxable year in which the taxpayer claims or carries forward a renewable energy system tax credit.

49.08 Utah state corporate income tax credit for alternative energy manufacturing

A. **GENERAL DESCRIPTION.** Utah provides an income tax credit in the amount of a certain percentage of the new state revenues generated by an alternative energy manufacturing project. *Utah Code Ann. §63M-4-501; Utah Code Ann. §59-10-1030; Utah Code Ann. §§63M-1-3101 to -3105 and 59-7-614.8.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer corporations establishing an alternative energy manufacturing project.

1. Taxpayer must be certified by the UT Office of Energy Development.
2. Taxpayer may be a pass-through entity.

C. **QUALIFYING ACTIVITY.** Taxpayer must establish an alternative energy manufacturing project. Alternative energy manufacturing project is a project that involves a new or expanding operation and the manufacturing of machinery or equipment used directly in the production of alternative energy.

D. **INCENTIVE AMOUNTS.** The tax credit amount is a certain percentage of the new state revenues generated by an alternative energy project.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax credit period is the lesser of 20 years or the project's economic life. Unused tax credit may be carried forward 7 years.

G. **MISCELLANEOUS.**

49.09 Utah state sales tax exemption for alternative energy research and development

A. **GENERAL DESCRIPTION.** Utah provides a sales tax exemption in the amount of 100% of the tax on alternative fuel research and development. *Utah Code Ann. §59-12-102; Utah Code Ann. §59-12-104(62)(a).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer owners of equipment used for alternative fuel research and development.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase or lease equipment used for alternative fuel research and development. Research and development is the process of inquiry or experimentation aimed at the discovery of facts, devices, technologies, or applications and the process of preparing those devices, technologies, or applications for marketing. Alternative energy includes biomass energy, geothermal energy, hydroelectric energy, solar energy, and wind energy. Biomass energy is any of the following that is used as the primary source of energy to produce fuel or electricity: material from a plant or tree or other organic matter that is available on a renewable basis including slash and brush from forests and woodlands; animal waste; methane or

synthetic gas produced at landfills as a byproduct of the treatment of wastewater residuals or through the conversion of waste material through a non-incineration thermal conversion process; aquatic plants; agricultural products; and waste vegetable oil. Geothermal energy is energy contained in heat that continuously flows outward from the earth that is used as the sole source of energy to produce electricity. Hydroelectric energy is water used as the sole source of energy to produce electricity. Solar energy is the sun used as the sole source of energy for producing electricity. Wind energy is wind used as the sole source of energy to produce electricity.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2027.

G. MISCELLANEOUS.

50. Vermont State Tax Incentives for Renewable Energy and Energy Efficiency

50.01 Vermont state property tax exemption for alternate energy source systems

A. GENERAL DESCRIPTION. Vermont provides a property tax exemption in the amount of 100% of the tax on alternate energy source systems. *Vt. Stat. Ann. 32 §3845.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of alternate energy source system property.

C. QUALIFYING ACTIVITY. Taxpayer must own alternate energy sources system property. Alternate energy sources system property includes any plant, structure or facility used for the generation of electricity or production of energy used on the premises for private, domestic, or agricultural purposes. Alternate energy sources systems include windmills, facilities for the collection of solar energy or the conversion of organic matter to methane, and net-metered systems.

1. Qualifying alternate energy sources system property does not include any property for sale or exchange to the public.

2. Qualifying alternate energy sources includes all component parts and land upon which a facility is located, not to exceed 1/2 acre.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of the property tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

50.02 Vermont state property tax financing for clean energy assessment districts

A. GENERAL DESCRIPTION. Vermont provides a property tax financing option for municipalities for

clean energy assessment districts. *Vt. Stat. Ann. 24 §1751(3); Vt. Stat. Ann. 24 §3261 et seq.; H.B. 446 (2009).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer owners of clean energy property.

1. Taxpayer must conduct an energy audit to quantify project costs, energy savings and carbon impacts.

C. QUALIFYING ACTIVITY. Taxpayer must own and finance clean energy property. Clean energy property is property used in projects incorporating energy efficiency and renewable-energy technologies. Renewable-energy technologies include solar water heating, photovoltaics (PV), landfill gas, wind, biomass, hydroelectric, geothermal-electric, anaerobic digestion and fuel cells using renewable fuels.

1. Qualifying energy-efficiency projects must be certified by Efficiency Vermont.

D. INCENTIVE AMOUNTS. The tax financing amount varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

50.03 Vermont state sales tax exemption for renewable-energy systems

A. GENERAL DESCRIPTION. Vermont provides a sales tax exemption in the amount of 100% of the tax on renewable-energy systems. *Vt. Stat. Ann. 32 §9741(46); Vt. Stat. Ann. 30 §8002(16); Vermont Sales and Use Tax Applied on Renewable Energy Generation Facilities, FS-1182, 05/01/2018.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of renewable-energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must purchase renewable-energy systems. Renewable-energy systems include: (1) systems

which generate electricity using eligible renewable energy resources up to 500 kW in capacity; (2) micro-combined heat and power systems up to 20 kW in capacity; and (3) solar water-heating systems. Renewable energy is energy produced using a technology that relies on a renewable energy resource that is being consumed at a harvest rate at or below its natural regeneration rate.

1. Qualifying renewable energy resource includes methane gas and other flammable gases produced by the decay of sewage treatment plant wastes or landfill wastes and anaerobic digestion of agricultural products, byproducts, or wastes.
2. Qualifying renewable energy resource does not include solid waste.
3. Qualifying renewable energy resource does include agricultural or silvicultural waste.
4. Qualifying renewable energy resource does not include nuclear fuel.
5. Qualifying renewable energy resource does not include hydroelectric facility with a generating capacity of greater than 200 megawatts.
6. Qualifying renewable energy resource does not include coal, oil, propane, and natural gas.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

50.04 Vermont state income tax credit for solar energy equipment

A. GENERAL DESCRIPTION. Vermont provides an income tax credit in the amount of 30% of the cost of solar energy equipment on business properties. Vt. Stat. Ann. 32 §5930z; Vt. Stat. Ann. 32 §5822; H.B. 313 (2009); H.B. 781 (2010); H.B. 56 (2011); Vermont Technical Bulletin No. TB-45, 07/27/2018.

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers installing solar energy equipment on business properties.

1. Taxpayer may not receive any grants or similar funding from the VT Clean Energy Development Fund.

C. QUALIFYING ACTIVITY. Taxpayer must install of solar energy equipment. Solar energy equipment is equipment that uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a structure, or to provide solar process heat.

D. INCENTIVE AMOUNTS. The tax credit amount is 30% of the cost of systems and equipment until December 31, 2011 for business properties, and 7.2% of the cost of systems and equipment until December 31, 2016 for individuals.

1. Qualifying costs of systems and equipment does not include grants or similar funding from any public or private program that assists in providing capital investment for a renewable energy project, including subsidized energy financing or tax-exempt private activity bonds.

E. INCENTIVE LIMITS. The maximum annual statewide tax credit amount is \$9.4 million.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2016. The tax credit for business properties expires December 31, 2011. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS. The tax credit may be recaptured if the federal tax credit is recaptured. Taxpayers may not receive Vermont's Clean Energy Development Fund financing.

51. Virginia State Tax Incentives for Renewable Energy and Energy Efficiency

51.01 Virginia state property tax financing option for clean energy assessment districts

A. GENERAL DESCRIPTION. Virginia provides a property tax financing option for municipalities for clean energy assessment districts. *Va. Code Ann. §15.2-958.3*.

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayers acquiring or installing clean energy improvements, distributed generation renewable energy sources or energy efficiency improvements.

C. QUALIFYING ACTIVITY. Taxpayer must acquire, install and finance clean energy improvements, distributed generation renewable energy sources or energy efficiency improvements.

D. INCENTIVE AMOUNTS. The tax financing option amounts varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

51.02 Virginia state property tax exemption for solar energy property and energy storage systems

A. GENERAL DESCRIPTION. Virginia provides a property tax exemption in the amount of 60-100% of the tax on solar energy property and energy storage systems. *Constitution of Va. §6(d); Va. Code Ann. §58.1-3660; H.B. 1239 (2014); H.B. 1305 (2016); S.B. 743 (2016); S.B. 902 (2018); H.B. 1434 (2020); H.B. 2006 (2020)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of solar energy equipment, energy storage systems or recycling equipment incorporated into residential, commercial or industrial property.

1. Taxpayer must be certified by the local building department.

C. QUALIFYING ACTIVITY. Taxpayer must own solar energy equipment, energy storage systems or recycling equipment incorporated into residential, commercial or industrial property. Solar energy equipment is equipment which is designed and used primarily for the purpose of collecting, generating, transferring, or storing thermal or electric energy. Recycling equipment is equipment which is integral to the recycling process and for use primarily for the purpose of abating or preventing pollution of the atmosphere or waters. Energy storage system is equipment, facilities, or devices that are capable of absorbing energy, storing it for a period of time, and redelivering that energy after it has been stored.

1. Qualifying property must be certified by the local building department or the VA Department of Mines, Minerals and Energy.

2. Qualifying property includes solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority.

3. Qualifying solar photovoltaic (electric energy) systems that equal 20 megawatts or less must: (i) be interconnected on or before 2018; or (ii) serve public or private universities.

4. Qualifying solar photovoltaic (electric energy) systems that equal 5 megawatts or less must be interconnected on or before 2019.

5. Qualifying energy storage systems must be greater than five megawatts and less than 150 megawatts.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due. The tax exemption amount is 80% for the first five years, 70% for the second five years and 60% for the remaining years of the property tax due for qualifying solar photovoltaic systems: (i) greater than 20 megawatts and less than 150 megawatts; or (ii) greater than 5 megawatts and less than 150 megawatts, interconnected on or after 2019. The tax exemption amount is 80% for the first five

years, 70% for the second five years and 60% for the remaining years of the property tax due for qualifying energy storage systems.

1. If a locality adopts an energy revenue share ordinance for an energy storage system, the tax exemption amount is 100%.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires on June 30, 2029 for projects greater than 5 megawatts.

G. MISCELLANEOUS.

51.03 Virginia state income tax credit for biodiesel and green diesel production

A. GENERAL DESCRIPTION. Virginia provides an income tax credit in the amount of \$0.01 per gallon of biodiesel and green diesel produced. *Va. Code Ann. §58.1-439.12:02; Virginia Ruling of the Commissioner PD 09-21.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer producers of biodiesel and green diesel.

1. Taxpayer must be certified by the VA Department of Mines, Minerals and Energy.
2. Taxpayer partners, shareholders, or members of a pass-through entity are allocated the tax credit in proportion to their ownership or interest in the business entity.
3. Taxpayer may transfer unused tax credit to 3rd parties.

C. QUALIFYING ACTIVITY. Taxpayer must produce biodiesel or green diesel fuels. Biodiesel fuel is fuel composed of mono-alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of ASTM D6751. Green diesel fuel is fuel produced from nonfossil renewable resources including agricultural or silvicultural plants, animal fats, residue and waste generated from the production, processing, and marketing of agricultural products, silvicultural products, and other renewable resources, and meeting applicable ASTM specifications.

1. Taxpayer must produce in Virginia 2 million gallons of biodiesel or green diesel fuels using feedstock originating domestically within the United States.

2. Feedstock is the agricultural or other renewable resources, whether plant or animal derived, used to produce biodiesel or green diesel fuels.

D. INCENTIVE AMOUNTS. The tax credit amount is \$0.01 per gallon of biodiesel and green diesel produced during the first 3 years of production.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$5,000.

F. INCENTIVE TIMEFRAME. The tax credit period is first 3 years of production. Unused tax credit may be carried forward 3 years.

G. MISCELLANEOUS.

51.04 Virginia state corporate income tax credit for clean-fuel vehicle and refueling property

A. GENERAL DESCRIPTION. Virginia provides an income tax credit in the amount of 10% of the deduction allowed under IRC §179A and 10-20% the costs used to compute the IRC §30 federal credit for electric vehicles. *Va. Code Ann. §58.1-438.1.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer corporations purchasing clean-fuel vehicles, clean-fuel refueling property and electric vehicles.

1. Tax credits granted to a partnership or S corporation may be passed through to the partners or shareholders.

C. QUALIFYING ACTIVITY. Taxpayer must purchase clean-fuel vehicles, clean-fuel refueling property or electric vehicles.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the deduction allowed under IRC §179A and 10% the costs used to compute the IRC §30 federal credit for electric vehicles. The tax credit amount is 20% the costs of equipment certified by

the VA Department of Environmental Quality when it is located in a municipality where an enhanced vehicle emissions inspections program is implemented.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Unused tax credit can be carried forward 5 years.

G. MISCELLANEOUS.

51.05 Virginia state property tax assessment for energy efficient buildings

A. GENERAL DESCRIPTION. Virginia provides a property tax assessment in various amount of the tax on energy efficient buildings. *Va. Code Ann. §58.1-3221.2.*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer owners of energy efficient buildings.

1. Energy-efficient building certification is determined by: (a) the granting of a certification under one of the programs that certifies the building meets or exceeds the performance standards or guidelines of the program, or (b) a qualifying architect or professional engineer designated by the county, city, or town who shall determine whether the building meets or exceeds the performance standards or guidelines under any program described.

C. QUALIFYING ACTIVITY. Taxpayer must own an energy-efficient building. An energy-efficient building is any building that exceeds the energy efficiency standards of the Virginia Uniform Statewide Building Code by 30%; meets performance standards of the Green Globes Green Building Rating System, the Leadership in Energy and Environmental Design (LEED) System or the EarthCraft House Program; or qualifies as an Energy Star home under federal Energy Star criteria.

1. Qualifying energy-efficient buildings do not include the real estate or land on which it is located.

2. Qualifying energy-efficient buildings must be located in a city or county embraced by the Northern Virginia Transportation Authority or the Hampton Roads Transportation Authority.

D. INCENTIVE AMOUNTS. The tax assessment amount of property tax due varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

51.06 Virginia state income tax deduction for sales and use tax paid on energy conservation personal property

A. GENERAL DESCRIPTION. Virginia provides an income tax deduction in the amount of 20% the sales and use tax paid on energy conservation personal property. *Va. Code Ann. §58.1-322(D)(12).*

B. ELIGIBLE TAXPAYERS. The tax deduction is available to Taxpayer purchasers of energy conservation personal property.

C. QUALIFYING ACTIVITY. Taxpayer must purchase energy conservation personal property. Energy conservation personal property which includes: (i) any clothes washers, room air conditioners, dishwashers, and standard size refrigerators that meet or exceed the applicable energy star efficiency requirements developed by the United States Environmental Protection Agency and the United States Department of Energy; (ii) any fuel cell that (a) generates electricity using an electrochemical process, (b) has an electricity-only generation efficiency greater than 35%, and (c) has a generating capacity of at least two kilowatts; (iii) any gas heat pump that has a coefficient of performance of at least 1.25 for heating and at least 0.70 for cooling; (iv) any electric heat pump hot water heater that yields an energy factor of at least 1.7; (v) any electric heat pump that has a heating system performance factor of at least 8.0 and a cooling seasonal energy efficiency ratio of at least 13.0; (vi) any central air conditioner that has a cooling

seasonal energy efficiency ratio of at least 13.5; (vii) any advanced gas or oil water heater that has an energy factor of at least 0.65; (viii) any advanced oil-fired boiler with a minimum annual fuel-utilization rating of 85; (ix) any advanced oil-fired furnace with a minimum annual fuel-utilization rating of 85; and (x) programmable thermostats.

D. INCENTIVE AMOUNTS. The tax deduction amount is 20% of the sales and use tax due.

E. INCENTIVE LIMITS. The maximum annual tax deduction amount is \$500.

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

51.07 Virginia state property tax assessment for renewable energy manufacturing

A. GENERAL DESCRIPTION. Virginia provides a property tax assessment in various amounts on real property improvements and tangible personal property used for manufacturing products from renewable energy. *Va. Code Ann. §58.1-3221.4; Va. Code Ann. §56-576; S.B. 656 (2010).*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer manufacturers using renewable energy.

C. QUALIFYING ACTIVITY. Taxpayer must own manufacturing property using renewable energy. Renewable energy is energy derived from sunlight, wind, falling water, biomass, sustainable or otherwise, (the definitions of which shall be liberally construed), energy from waste, municipal solid waste, wave motion, tides, geothermal power, and the proportion of the thermal or electric energy from a facility that results from the co-firing of biomass.

1. Renewable energy does not include energy derived from coal, oil, natural gas or nuclear power.

D. INCENTIVE AMOUNTS. The tax assessment amount of property tax due varies by local jurisdiction.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

51.08 Virginia state income tax credit for green and alternative energy job creation

A. GENERAL DESCRIPTION. Virginia provides an income tax credit in the amount of \$500 for each new green and alternative energy job created. *Va. Code Ann. §58.1-439.12:05; S.B. 623 (2010); H.B. 1843 (2015); S.B 573 (2018); H.B. 2178 (2023).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer employers in green and alternative energy job industries.

1. Taxpayer partners or members of pass-through entities must be allocated the tax credit in proportion to their ownership or interest in the pass-through entity.

C. QUALIFYING ACTIVITY. Taxpayer must create a green and alternative energy job with an annual salary that is \$50,000 or more. A green job is employment in industries relating to the field of renewable, alternative energies, including the manufacture and operation of products used to generate electricity and other forms of energy from alternative sources that include hydrogen and fuel cell technology, landfill gas, methane extracted in Planning District 2, geothermal heating systems, solar heating systems, hydropower systems, wind systems, and biomass and biofuel systems.

1. Qualifying green and alternative energy jobs must be certified by the VA Secretary of Commerce and Trade.

D. INCENTIVE AMOUNTS. The tax credit amount is \$500 per green and alternative energy job created.

E. INCENTIVE LIMITS. The maximum annual tax credit amount is \$175,000.

F. INCENTIVE TIMEFRAME. The tax credit period is 5 years, provided the green and alternative energy

job is continuously filled throughout the period. The tax credit expires December 31, 2020. Unused tax credit may be carried forward 5 years.

G. MISCELLANEOUS. Taxpayer will not be allowed a green job creation tax credit for any green and alternative energy job for which Taxpayer is allowed: (1) a major business facility job tax credit pursuant to Va. Code Ann. §58.1-439 , or (2) a federal tax credit for investments in manufacturing facilities for clean energy technologies that would foster investment and job creation in clean energy manufacturing.

51.09 Virginia state sales tax exemption for solar and wind energy equipment

A. GENERAL DESCRIPTION. Virginia provides a sales tax exemption in the amount of 100% of the tax on solar and wind energy equipment. *Va. Code Ann. §58.1-609.3(2); H.B. 1305 (2016)*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of machinery, tools, and equipment used to generate energy derived from sunlight or wind.

C. QUALIFYING ACTIVITY. Taxpayer must purchase machinery, tools, and equipment used to generate energy derived from sunlight or wind.

D. INCENTIVE AMOUNTS. The tax exemption is 100% of sales tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2027.

G. MISCELLANEOUS

51.10 Virginia state property tax exemption for solar facility.

A. GENERAL DESCRIPTION. Virginia provides a sales tax exemption for solar facilities. *Va. Code Ann. §58.1-3661; S.B. 686 (2022)*.

B. ELIGIBLE TAXPAYERS. Taxpayers owners of qualifying solar facilities.

C. QUALIFYING ACTIVITY. A qualifying solar facility is a solar facility with a nameplate rated electrical generating capacity measured in direct current kilowatts of not more than 25 kilowatts on the roof of a residential, commercial, industrial, institutional, or mixed-use building or buildings to serve the electricity or thermal needs of the building or property.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption is effective on January 1, 2023.

G. MISCELLANEOUS

51.11 Virginia state sales tax exemption for Energy Star and WaterSense Qualified Products

A. GENERAL DESCRIPTION. Virginia provides a sales tax exemption in the amount of 100% the tax on qualifying energy efficient products. *Va. Code Ann. §58.1-609.1; Virginia's 3-Day Sales Tax Holiday Reminder, Va. Dept. of Taxation*.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of qualifying energy efficient products.

C. QUALIFYING ACTIVITY. Taxpayer must purchase qualifying energy efficient products under \$2,500. Qualifying energy efficient products are certified Energy Star or WaterSense Products. An Energy Star qualified product is any dishwasher, clothes washer, air conditioner, ceiling fan, light bulb, dehumidifier, programmable thermostat, or refrigerator, the energy efficiency of which has been designated by the United States Environmental Protection Agency and the United States Department of Energy as meeting or exceeding each such agency's requirements under the Energy Star program. A WaterSense qualified products are those that have been recognized as being water efficient by the WaterSense program sponsored by the U.S. Environmental Protection Agency as indicated by a WaterSense label.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of sales and use tax due.

E. INCENTIVE LIMITS. The maximum purchase amount is \$2,500 per item.

F. INCENTIVE TIMEFRAME. The tax exemption is in effect from the first Friday in August and ends the following Sunday. The sales tax exemption expires June 30, 2023.

G. MISCELLANEOUS.

53. Washington State Tax Incentives for Renewable Energy and Energy Efficiency

53.01 Washington state sales and use tax exemption for renewable energy equipment

A. **GENERAL DESCRIPTION.** Washington provides a sales and use tax exemption in the amount ranging from 50 - 100% for renewable energy equipment. Wash. Rev. Code §82.08.962; Wash. Rev. Code §82.08.963(1); Wash. Rev. Code §82.12.962 Wash. Rev. Code §82.08.02567; Wash. Rev. Code §82.08.835; Wash. Admin. Code §458-20-263; Washington Tax Determination No. 16-0091; Washington Tax Determination No. 16-0276; Washington Tax Determination No. 16-0277; S.B. 5939 (2017); Washington Special Notice No. 09/25/2017; Washington Special Notice No. 06/01/2018 (Solar Systems); E2SSB 5116 (2019); Washington Special Notice No. 06/21/2019; Washington Special Notice No. 07/18/2019.

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers of renewable energy equipment.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase machinery and equipment used to generate electricity using fuel cells, wind, sun, biomass energy, tidal or wave energy, or geothermal. Machinery and equipment include industrial fixtures, devices, and support facilities that are integral and necessary to the generation of electricity using fuel cells, wind, sun, or landfill gas as the principal source of power. Qualifying use is providing any part of the process that captures the energy of the wind or sun, converts that energy to electricity, and stores, transforms, or transmits that electricity for entry into or operation in parallel with electric transmission and distribution systems.

1. Qualifying systems must have a generating capacity of at least 1 kilowatt (kW).
2. Qualifying solar systems must have a generating capacity of at least 100 kilowatt (kW) but no more than 200 kilowatt (kW).

3. Qualifying machinery and equipment includes labor and services related to the installation of the equipment.

4. Qualifying machinery and equipment does not include: (i) hand-powered tools; (ii) property with a useful life of less than one year; (iii) repair parts required to restore machinery and equipment to normal working order; (iv) replacement parts that do not increase productivity, improve efficiency, or extend the useful life of machinery and equipment; (v) buildings; or (vi) building fixtures that are not integral and necessary to the generation of electricity that are permanently affixed to and become a physical part of a building.

5. Fuel cell is an electrochemical reaction that generates electricity by combining atoms of hydrogen and oxygen in the presence of a catalyst.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is generally 50% sales and use tax due. The tax exemption amount is 75% sales and use tax due if the project complies with prevailing wage rates, and 100% of sales and use tax due if the project is developed under a community workforce agreement.

E. **INCENTIVE LIMITS.** Taxpayer must pay sales tax to the seller and then apply for a partial refund from the Department of Revenue, instead of receiving a full sales tax exemption at the point of sale for solar energy systems that produce more than 10 kw of electricity.

F. **INCENTIVE TIMEFRAME.** The tax exemption expires December 31, 2029.

G. **MISCELLANEOUS.**

53.02 Washington state business and occupation tax abatement for solar equipment manufacturers

A. **GENERAL DESCRIPTION.** Washington provides business and occupation tax abatement in the amount of 43% of the tax on solar equipment manufacturers. Wash. Rev. Code §82.04.294; Wash. Rev. Code §82.08.835; Wash. Admin. Code §458-20-267; Washington Special Notice

No. 09/27/2013; S.B. 5977 (2017); Washington Special Notice No. 10/2017.

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer manufacturers and wholesale marketers of solar-electric modules or silicon components.

1. Taxpayers are required to file annual reports with the WA Department of Revenue, detailing employment, wages, and health and retirement benefits.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture or wholesale market photovoltaic modules, stirling converters, solar grade silicon, silicon solar wafers, silicon solar cells, thin film solar devices or compound semiconductor solar wafers to be used exclusively in solar energy systems.

1. Qualifying solar energy systems are devices or combination of devices or elements that rely upon direct sunlight as an energy source for use in the generation of electricity.
2. Qualifying solar grade silicon is high-purity silicon used exclusively in components of solar energy systems using photovoltaic modules to capture direct sunlight.

D. INCENTIVE AMOUNTS. The tax abatement amount is 43% of business and occupation tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement expires on June 30, 2027.

G. MISCELLANEOUS.

53.03 Washington state sales and use tax exemption for residential energy efficiency property

A. GENERAL DESCRIPTION. Washington provides a sales and use tax exemption in the amount 100% of the tax on residential energy efficiency property. Wash. Rev. Code §82.08.998; Wash. Rev. Code §82.12.998; H.B. 2847 (2008); Washington Special Notice 05/22/2008;

Washington Tax Determination No. 14-0253, 08/07/2014.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of residential energy efficiency property.

1. Taxpayer must provide the seller with an exemption certificate.

C. QUALIFYING ACTIVITY. Taxpayer must purchase residential energy efficiency property. Residential efficiency property includes insulation, sealants, and parts for air infiltration and heating and cooling systems.

1. Qualifying residences must be under Washington's weatherization assistance program.
2. Qualifying property does not include labor charges for installation.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

53.04 Washington state sales and use tax exemption for clean fuel vehicles

A. GENERAL DESCRIPTION. Washington provides a sales and use tax exemption in the amount 100% of the tax on clean fuel vehicles. Wash. Rev. Code §82.08.809 et seq.; S.B. 6712 (2010); Wash. Dept. of Rev., Special Notice, 7/21/10; S.B. 5987 (2015); Tax Topic—Applying Trade-in Allowance to New Clean Alternative Fuel and Plug-in Hybrid Vehicle Leases from July 15, 2015 – June 30, 2019, Washington Department of Revenue, 11/01/2015; H.B. 2778 (2016); Washington Special Notice No. 06/23/2016; Washington Special Notice No. 04/18/2018, 04/18/2018; S.B. 5910 (2022).

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of new passenger cars, light duty trucks, and medium

duty passenger vehicles, which are exclusively powered by a clean alternative fuel.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase new passenger cars, light duty trucks, or medium duty passenger vehicles, which are exclusively powered by a clean alternative fuel. Clean alternative fuel is natural gas, propane, hydrogen, or electricity when used to fuel a motor vehicle that meets California emission standards and complies with Washington State Department of Ecology rules.

1. Qualifying modified vehicles must be part of a fleet of at least 5 vehicles, all owned by the same person; have under 30,000 in mileage; be less than 2 years past their original date of manufacture; and be sold for the first time since modification.
2. Qualifying electric vehicles must have a lowest manufacturer's suggested retail price less than or equal to \$42,500.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the sales and use tax due, up to a maximum selling price of \$32,000.

1. Qualifying hybrid vehicles that have a U.S. Environmental Protection Agency estimated highway gasoline mileage rating of at least 40 mpg are eligible for an exemption only from the 0.3% motor vehicle tax.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax exemption expires May 31, 2018.

G. **MISCELLANEOUS.**

53.05 Washington state business tax credit for renewable energy system cost recovery incentive payments

A. **GENERAL DESCRIPTION.** Washington provides a business tax credit in the amount 100% of the cost recovery incentive payments made. Wash. Rev. Code §82.16.110 et seq.; Wash. Dept. of Rev., Regs. §458-20-273; S.B. 6170 and S.B. 6658 (2010); Washington Excise Tax Advisory No. 3197.2015, 08/25/2015; S.B. 5939 (2017).

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to light and power businesses Taxpayers making cost recovery incentive payments.

1. Taxpayers may be eligible condominium unit owners or condominium associations.
2. Taxpayers must be certified by the Washington State University extension energy program.

C. **QUALIFYING ACTIVITY.** Taxpayer must make renewable energy system cost recovery incentive payments to owners generating electricity from a renewable energy system. Renewable energy system is a solar energy system, an anaerobic digester, or a wind generator used for producing electricity.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 100% of the cost recovery incentive payments made.

E. **INCENTIVE LIMITS.** The maximum annual tax credit amount is the greater of \$250,000 or 1.5% of the Taxpayer's taxable power sales due. The tax credit is not refundable.

1. Utility-owned community solar projects may only account for up to 25% of the total allowable tax credit.
2. Company-owned community solar projects may only account for up to 5% of the total allowable tax credit.

F. **INCENTIVE TIMEFRAME.** The tax credit expires June 30, 2017.

G. **MISCELLANEOUS.**

53.06 Washington state business and occupations tax credit for clean alternative fuel commercial vehicles

A. **GENERAL DESCRIPTION.** Washington provides a business tax credit in the amount of 75% of the incremental cost of, or 30% the conversion cost to, clean alternative fuel commercial vehicles. Wash. Rev. Code §82.04.4496; Washington Special Notice No. 12/19/2015; Washington Special Notice No. 05/11/2016; H.B. 1809; H.B. 2042

(2019); *Washington Tax Determination No. 20-0163, 06/10/2020, 41 WTD 196.*

B. **ELIGIBLE TAXPAYERS.** The tax credit is available to Taxpayer owners or lessees of clean alternative fuel commercial vehicles.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase or lease clean alternative fuel commercial vehicles.

1. Clean alternative fuel is electricity, dimethyl ether, hydrogen, methane, natural gas, liquefied natural gas, compressed natural gas, or propane.

2. A qualifying commercial vehicle is commercial vehicle that is purchased by a private business and that is used exclusively in the provision of commercial services or transportation of commodities, merchandise, produce, refuse, freight, animals, or passengers and that is displaying a Washington state license plate.

3. Qualifying commercial vehicle that provides transportation to passengers must be operated by an auto transportation company.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 75% of the incremental cost of a clean alternative fuel commercial vehicle or 30% of the cost of a conversion to a clean alternative fuel commercial vehicle.

E. **INCENTIVE LIMITS.** The maximum tax credit amount per vehicle is: (i) \$25,000 for vehicles up to 14,000 lbs, (ii) \$50,000 for vehicles from 14,001 to 26,500 lbs, and (iii) \$100,000 for vehicles above 26,500 lbs. The statewide maximum annual tax credit amount per vehicle class is \$2 million. The annual maximum tax credit for a conversion is the lesser of \$250,000 or the amount for 25 vehicles. The statewide maximum annual tax credit amount is \$6 million.

F. **INCENTIVE TIMEFRAME.** The tax credit expires December 31, 2020. Unused tax credit may be carried forward 1 year.

G. **MISCELLANEOUS.**

53.07 Washington state sales and use tax exemption for biofuel materials

A. **GENERAL DESCRIPTION.** Washington provides a sales and use tax exemption in the amount of 100% of the tax on hog fuel. *Wash. Rev. Code §82.08.956; Wash. Dept. of Rev., Regs. §§ 458-20-121, and -134; S.B. 5882 (2013).*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers of hog fuel.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase hog fuel. Hog fuel is wood waste and other wood residuals used to produce electricity, steam, heat or biofuel.

1. Hog fuel includes forest derived biomass.
2. Hog fuel does not include firewood or wood pellets.

D. **INCENTIVE AMOUNTS.** The tax exemption amount is 100% of the sales and use tax due.

E. **INCENTIVE LIMITS.**

F. **INCENTIVE TIMEFRAME.** The tax exemption expires June 30, 2024.

G. **MISCELLANEOUS.**

53.08 Washington state sales and use tax exemption for anaerobic digesters

A. **GENERAL DESCRIPTION.** Washington provides a sales and use tax exemption in the amount of 100% of the tax on anaerobic digester equipment. *Wash. Rev. Code §82.08.900; S.B. 5275 (2015); S.B. 2580 (2017); Washington Special Notice No. 06/01/2018.*

B. **ELIGIBLE TAXPAYERS.** The tax exemption is available to Taxpayer purchasers of anaerobic digester equipment.

C. **QUALIFYING ACTIVITY.** Taxpayer must (i) purchase equipment necessary to process biogas from a landfill into marketable coproducts, including but not limited to biogas conditioning, compression, and electrical generation equipment, or to services rendered in respect to

installing, constructing, repairing, cleaning, altering, or improving equipment necessary to process biogas from a landfill into marketable coproducts or (ii) establish or operate an anaerobic digester or to render services in respect to installing, constructing, repairing, cleaning, altering, or improving an anaerobic digester, or sell of tangible personal property that becomes an ingredient or component of the anaerobic digester. Anaerobic digester is a facility that processes organic material into biogas and digestate using microorganisms in a decomposition process within a closed, oxygen-free container as well as the equipment necessary to process biogas or digestate produced by an anaerobic digester into marketable coproducts, including but not limited to biogas conditioning, compression, nutrient recovery, and electrical generation equipment.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

53.09 Washington state property tax exemption for anaerobic digester facilities

A. GENERAL DESCRIPTION. Washington provides a property tax exemption in the amount 100% of the tax on anaerobic digester facilities. *Wash. Rev. Code §84.36.635 et seq.; S.B. 6712 (2010); S.B. 2580 (2017); Washington Special Notice No. 06/01/2018.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of anaerobic digester facilities.

C. QUALIFYING ACTIVITY. Taxpayer must own anaerobic digester facilities. A anaerobic digester facility is all buildings, machinery, equipment, and other personal property which are used primarily for the operation of an anaerobic digester, the land upon which this property is located, and land that is reasonably necessary in the operation of an anaerobic digester.

1. An anaerobic digester is a facility that processes manure from livestock into biogas and dried manure using microorganisms in a decomposition process within a closed, oxygen-free container. Biodiesel feedstock is oil that is produced from an agricultural crop for the sole purpose of ultimately producing biodiesel fuel.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption period is 6 years. The tax exemption expires December 31, 2024.

G. MISCELLANEOUS.

53.10 Washington state business and occupation tax abatement for solar silicon manufacturing

A. GENERAL DESCRIPTION. Washington provides a business and occupation tax abatement in the various amounts for use in solar silicon manufacturing. *Wash. Rev. Code §82.04.294; S.B. 5977 (2017).*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer manufacturers of solar silicon equipment.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture solar energy systems using photovoltaic modules or stirling converters, or of manufacturing solar grade silicon, silicon solar wafers, silicon solar cells, thin film solar devices, or compound semiconductor solar wafers to be used exclusively in components of such system and making sales at wholesale of solar energy systems using photovoltaic modules or stirling converters, or of solar grade silicon, silicon solar wafers, silicon solar cells, thin film solar devices, or compound semiconductor solar wafers to be used exclusively in components of such systems, manufactured by that person.

1. Compound semiconductor solar wafers is a semiconductor solar wafer composed of

elements from two or more different groups of the periodic table.

2. Module is the smallest nondivisible self-contained physical structure housing interconnected photovoltaic cells and providing a single direct current electrical output.

3. Photovoltaic cell is a device that converts light directly into electricity without moving parts.

4. Silicon solar cells is a photovoltaic cell manufactured from a silicon solar wafer.

5. Silicon solar wafers is a silicon wafer manufactured for solar conversion purposes.

6. Solar energy system is any device or combination of devices or elements that rely upon direct sunlight as an energy source for use in the generation of electricity.

7. Solar grade silicon is high-purity silicon used exclusively in components of solar energy systems using photovoltaic modules to capture direct sunlight. "Solar grade silicon" does not include silicon used in semiconductors.

8. Stirling converter is a device that produces electricity by converting heat from a solar source utilizing a stirling engine.

9. Thin film solar devices is a nonparticipating substrate on which various semiconducting materials are deposited to produce a photovoltaic cell that is used to generate electricity.

D. INCENTIVE AMOUNTS. The tax abatement amount varies as a percent of the tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax abatement expires July 1, 2027.

G. MISCELLANEOUS.

53.11 Washington state business and occupation tax abatement for wood biomass fuel manufacturing

A. GENERAL DESCRIPTION. Washington provides a business and occupation tax abatement in the various amounts for use in wood biomass fuel manufacturing. *Wash. Rev. Code §82.04.260*;

S.B. 2580 (2017); Washington Special Notice No. 06/01/2018.

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer manufacturers of wood biomass fuel.

C. QUALIFYING ACTIVITY. Taxpayer must manufacture biomass fuel. Wood biomass fuel is a liquid or gaseous fuel that is produced from lignocellulosic feedstocks, including wood, forest, field residue, and dedicated energy crops, and that does not include wood treated with chemical preservations such as creosote, pentachlorophenol, or copper-chrome-arsenic

D. INCENTIVE AMOUNTS. The tax abatement amount varies as a percent of the tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

53.12 Washington state sales and use tax exemption for biogas processing equipment

A. GENERAL DESCRIPTION. Washington provides a sales and use tax exemption in the amount of 100% of the tax on biogas processing equipment. *Wash. Rev. Code §82.08.900; H.B. 2580 (2018); Wash. Admin. Code §458-20-263.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of biogas processing equipment.

C. QUALIFYING ACTIVITY. Taxpayer must (i) purchase equipment necessary to process biogas from a landfill into marketable coproducts, including but not limited to biogas conditioning, compression, and electrical generation equipment, or to services rendered in respect to installing, constructing, repairing, cleaning, altering, or improving equipment necessary to process biogas from a landfill into marketable coproducts.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires December 31, 2024.

G. MISCELLANEOUS.

53.13 Washington state public utility tax credit for energy efficiency incentive payments

A. GENERAL DESCRIPTION. Washington provides a public utility tax credit in the amount 100% of the energy efficiency incentive payments made. *Wash. Rev. Code §82.16.185, Wash. Rev. Code §19.27A.220; Washington Special Notice No. 12/08/2020.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to light and power business Taxpayers making energy efficiency incentive payments.

C. QUALIFYING ACTIVITY. Taxpayer must make energy efficiency incentive payments to eligible building owners under the Early adoption incentive program for the State energy performance standard.

D. INCENTIVE AMOUNTS. The tax credit amount is 100% of the energy efficiency incentive payments made and documented administrative costs not to exceed 8% of incentive payments.

E. INCENTIVE LIMITS. The tax credit is not refundable.

F. INCENTIVE TIMEFRAME. The tax credit expires June 30, 2032. The tax credit may be carried forward 2 years.

G. MISCELLANEOUS.

53.14 Washington state sales and use tax exemption for hydrogen fuel cell electric vehicles

A. GENERAL DESCRIPTION. Washington provides a sales and use tax exemption in the amount of 50-100% of the tax on hydrogen fuel cell electric vehicles. *Wash. Rev. Code §82.08; Wash. Rev. Code §82.12; S.B. 5000 (2021); Washington Tax Determination No. 21-0082, 04/23/2021, 41 WTD 389, released 10/26/2022.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of hydrogen fuel cell electric vehicles.

C. QUALIFYING ACTIVITY. Taxpayer must buy or lease new and used electric passenger cars, light duty trucks, and medium duty passenger vehicles that are powered by a fuel cell. Fuel cell is a technology that uses an electrochemical reaction to generate electric energy by combining atoms of hydrogen and oxygen in the presence of a catalyst.

1. Qualifying vehicles must be listed on the State Department of Licensing list of all vehicle models qualifying for the tax exemption.

D. INCENTIVE AMOUNTS. The tax exemption amount is 50% of the sales and use tax due on new vehicles and 100% of the sales and use tax due on used vehicles.

E. INCENTIVE LIMITS. The maximum amount eligible for the tax exemption is the lesser of \$16,000 or the fair market value of the vehicle. The tax exemption for new vehicles expires after the last day of the calendar month immediately following the month that the limit of 650 exempt vehicles is reached.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2029.

G. MISCELLANEOUS.

53.15 Washington state public utilities tax credit for community solar projects.

A. GENERAL DESCRIPTION. Washington provides a state public utilities tax credit for community solar projects under the community solar incentive program administered by the Washington State University Extension Energy Program. *Wash.*

Rev. Code § 82.16.130; Wash. Rev. Code § 82.16.170; H.B. 1814 (2022); Washington Special Notice No. 07/01/2022 (Community Solar Project Tax Credit).

B. ELIGIBLE TAXPAYERS. The tax credit is available to light and power business Taxpayers.

C. QUALIFYING ACTIVITY. The Taxpayer must make incentive payments for community solar projects. A community solar project is a solar energy system that: (1) has a direct current nameplate capacity that is more than 12 kilowatts (kW) and no greater than 199 kW; (2) has at least two low-income subscribers or one low-income service provider; and (3) meets the eligibility requirements of the Community Solar Expansion Program.

D. INCENTIVE AMOUNTS. The tax credit amount is equal to: (i) Incentive payments made in any fiscal year under the Community Solar Expansion Program and (ii) any fees a utility is allowed to recover under the Washington State University extension energy program.

E. INCENTIVE LIMITS. The tax credit may not exceed the greater of (i) 1.5% of the business's taxable Washington power sales generated in calendar year 2014 or (ii) \$250,000.

F. INCENTIVE TIMEFRAME. The Taxpayer must submit an application for precertification on or after July 1, 2022. The tax credit expires June 30, 2036 and the tax credits may not be claimed after June 30, 2037.

G. MISCELLANEOUS.

53.16 Washington state sales and use tax exemption for electric vehicle batteries and fuel cells

A. GENERAL DESCRIPTION. Washington provides a sales and use tax exemption in the amount of 100% of the tax on electric vehicle batteries and fuel cells. *Wash. Rev. Code §82.08.816.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of electric vehicle batteries and fuel cells.

C. QUALIFYING ACTIVITY. Taxpayer must buy electric vehicle batteries and fuel cells which are: (i) the sale of batteries or fuel cells for electric vehicles, including batteries or fuel cells sold as a component of an electric bus at the time of the vehicle's sale; (ii) the sale of or charge made for labor and services rendered in respect to installing, repairing, altering, or improving electric vehicle batteries or fuel cells; (iii) the sale of or charge made for labor and services rendered in respect to installing, constructing, repairing, or improving battery or fuel cell electric vehicle infrastructure, including hydrogen fueling stations; (iv) the sale of tangible personal property that will become a component of battery or fuel cell electric vehicle infrastructure during the course of installing, constructing, repairing, or improving battery or fuel cell electric vehicle infrastructure; and (v) the sale of zero emissions buses.

1. Battery charging station is an electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standards, codes, and regulations.

2. Battery exchange station is a fully automated facility that will enable an electric vehicle with a swappable battery to enter a drive lane and exchange the depleted battery with a fully charged battery through a fully automated process, which meets or exceeds any standards, codes, and regulations.

3. Electric vehicle infrastructure is structures, machinery, and equipment necessary and integral to support a battery or fuel cell electric vehicle, including battery charging stations, rapid charging stations, battery exchange stations, fueling stations that provide hydrogen for fuel cell electric vehicles, green electrolytic hydrogen production facilities, and renewable hydrogen production facilities

4. Green electrolytic hydrogen is hydrogen produced through electrolysis, and does not include hydrogen manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock

5. Rapid charging station is an industrial grade electrical outlet that allows for faster recharging of electric vehicle batteries through

higher power levels, which meets or exceeds any standards, codes, and regulations

6. Renewable hydrogen is hydrogen produced using renewable resources both as the source for hydrogen and the source for the energy input into the production process

7. Zero emissions bus is a bus that emits no exhaust gas from the onboard source of power, other than water vapor

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales and use tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax exemption expires June 30, 2025.

G. MISCELLANEOUS.

53.17 Washington state sales and use tax deferral for solar canopies at commercial centers.

A. GENERAL DESCRIPTION. Washington provides a sales and use tax deferral for an approved amount for solar canopies installed in qualifying commercial centers. *Wash. Rev. Code §82.90.010 et seq., S.B. 5714 (2022); Washington Special Notice No. 07/01/2022 (Solar Canopy Retail Sales and Use Tax Deferral).*

B. ELIGIBLE TAXPAYERS. The tax deferral is available to Taxpayer owner of qualifying solar canopies.

1. Taxpayer must be certified by the Department of Revenue.

2. Taxpayer may be lessee of the qualifying property.

C. QUALIFYING ACTIVITY. Taxpayer must install qualified solar canopies. Qualified solar canopy is construction of a new solar canopy that has an area of at least 50,000 square feet infrastructure. Solar canopy is an elevated structure, or multiple structures, containing a solar energy system, with a nameplate capacity of at least one megawatt of alternating current. A solar energy system is any device or combination of devices or elements that

rely upon direct sunlight as an energy source for use in the generation of electricity.

1. Qualifying commercial center is a property currently used for retail, industrial, office, or other commercial purposes, containing a parking area or other area dedicated for both vehicle use and placement of a solar canopy.

2. Qualifying solar canopies include the solar energy system, power lines, and any equipment required to connect the solar canopy to the electrical grid.

D. INCENTIVE AMOUNTS. The tax deferral amount is for an approved amount by application. Taxpayer must repay: (i) 50% of the tax deferred if the eligible investment project includes procurement from and contracts with women, minority, or veteran-owned businesses, and other department of labor standards; (ii) 75% of the tax deferred if the eligible investment project compensates workers at prevailing wage rates; and (iii) 100% if the eligible investment project is developed under a community workforce agreement or project labor agreement.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deferral expires June 30, 2032. Taxpayer must begin paying the deferred taxes in the 2nd year after the project has been operationally completed.

1. Taxpayer must begin meaningful construction on an eligible investment project within 1 year of receiving a deferral certificate.

G. MISCELLANEOUS.

53.18 Washington state sales and use tax deferral for clean energy investment.

A. GENERAL DESCRIPTION. Washington provides a sales and use tax deferral for an approved amount for clean energy investment. *Wash. Rev. Code §82.89.010 et seq., S.B. 5714 (2022); Washington Special Notice No. 07/01/2022 (Sales and Use Tax Deferral Program for Clean Energy Investment).*

B. ELIGIBLE TAXPAYERS. The tax deferral is available to Taxpayer owner of clean energy investments.

1. Taxpayer must be certified by the Department of Revenue.
2. Taxpayer may be lessee of the qualifying property.

C. QUALIFYING ACTIVITY. Taxpayer must develop an eligible investment project. Qualifying eligible investment project is an investment project of at least \$2,000,000 in either qualified buildings or qualified machinery and equipment, or both, for any of the following new, renovated, or expanded: (a) manufacturing operations; (b) facilities to produce clean fuels, renewable hydrogen, green electrolytic hydrogen, or green hydrogen carriers; or (c) storage facilities. Manufacturing operations is manufacturing tangible personal property exclusively incorporated as an ingredient or component of or used in the generation of: (a) Passenger cars, light duty trucks, medium duty passenger vehicles, buses, commercial vehicles, or motorcycles that emit no exhaust gas from the onboard source of power, other than water vapor; (b) Charging and fueling infrastructure for electric, hydrogen, or other vehicle types that emits no exhaust gas from the onboard source of power, other than water vapor; (c) Renewable and green electrolytic hydrogen, including preparing renewable and green electrolytic hydrogen for distribution or converting it to a green hydrogen carrier; (d) Clean fuel with associated greenhouse gas emissions not exceeding 80 percent of the 2017 levels established; (e) Electricity from renewable resources; or (f) Storage facilities. Storage facility is a facility that: (a) Accepts electricity as an energy source and uses a chemical, thermal, mechanical, or other process to store energy for subsequent delivery or consumption in the form of electricity; or (b) Stores renewable hydrogen, green electrolytic hydrogen, or green hydrogen carrier for subsequent delivery or consumption.

1. Green hydrogen carrier is a chemical compound, created using electricity or renewable resources as energy input and without use of fossil fuel as a feedstock, from renewable hydrogen or green electrolytic

hydrogen for the purposes of transportation, storage, and dispensing of hydrogen.

2. Renewable resource is means (i) water; (ii) wind; (iii) solar energy; (iv) geothermal energy; (v) renewable natural gas; (vi) renewable hydrogen; (vii) wave, ocean, or tidal power; (viii) biodiesel fuel that is not derived from crops raised on land cleared from old growth or first growth forests; or (ix) biomass energy.

D. INCENTIVE AMOUNTS. The tax deferral amount is for an approved amount by application. The tax deferral amount may only be used on purchases of materials and equipment, labor, or services to be incorporated in the eligible investment project at the location listed on the certificate. Taxpayer must repay: (i) 50% of the tax deferred if the eligible investment project includes procurement from and contracts with women, minority, or veteran-owned businesses, and other department of labor standards; (ii) 75% of the tax deferred if the eligible investment project compensates workers at prevailing wage rates; and (iii) 100% if the eligible investment project is developed under a community workforce agreement or project labor agreement.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax deferral expires June 30, 2032. Taxpayer must begin paying the deferred taxes in the 2nd year after the project has been operationally completed.

1. Taxpayer must begin meaningful construction on an eligible investment project within 2 years of receiving a deferral certificate.

G. MISCELLANEOUS.

53.19 Washington state property tax exemption for personal property generating renewable energy

A. GENERAL DESCRIPTION. Washington provides a property tax exemption in the amount 100% of the tax on personal property generating renewable energy. *Wash. Rev. Code §84.36___ et seq.; H.B. 1756 (2023).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of personal property generating renewable energy.

C. QUALIFYING ACTIVITY. Taxpayer must own qualified personal property generating renewable energy. Qualified personal property is personal property that is used exclusively for the generation or storage of renewable energy in a facility.

1. Renewable energy is energy produced by a solar or wind facility with nameplate capacity sufficient to generate at least 10 megawatts of nameplate capacity of alternating current power.
2. Qualified renewable energy generating system is a set of devices whose primary purpose is to produce electricity by means of any combination of collecting, transferring, or converting renewable energy.
3. Renewable energy storage system is battery storage or battery energy storage system that can store renewable energy when production exceeds demand and release energy when energy demand increases.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS. Taxpayer must pay an excise tax ranging from \$80 - \$150 per month per megawatt for qualified renewable energy generating systems and ranging from \$14-19 per month per megawatt hour for renewable energy storage capacity.

F. INCENTIVE TIMEFRAME. The tax exemption period is 10 or 15 years. The tax exemption applies starting for taxes levied for collection in 2025.

G. MISCELLANEOUS.

54. West Virginia State Tax Incentives for Renewable Energy and Energy Efficiency

54.01 West Virginia state business and operation tax abatement for wind energy generation

A. GENERAL DESCRIPTION. West Virginia provides a business and operation tax abatement in the amount 87.5% of the value on wind energy generation. *W. Va. Code §11-13-2o.*

B. ELIGIBLE TAXPAYERS. The tax abatement is available to Taxpayer owners of wind energy generation electricity production facilities.

C. QUALIFYING ACTIVITY. Taxpayer must generate, produce or sell electricity produced utilizing a turbine powered primarily by wind.

D. INCENTIVE AMOUNTS. The tax abatement amount is 87.5% of the tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

54.02 West Virginia state property tax exemption assessment for wind energy systems

A. GENERAL DESCRIPTION. West Virginia provides a property tax exemption assessment in the amount of 21% of the value of qualifying property of wind energy systems. *W. Va. Code §11-6A-5a.*

B. ELIGIBLE TAXPAYERS. The tax assessment is available to Taxpayer utilities that own qualifying property of wind energy systems.

C. QUALIFYING ACTIVITY. Taxpayer must own qualifying property of wind energy systems. A wind energy system is a power project designed, constructed or installed to convert wind into electrical energy. Qualifying property includes the wind turbine and tower and is limited to: the rotor,

consisting of the blades and the supporting hub; the drive train, which includes the remaining rotating parts such as the shafts, gearbox, coupling, a mechanical brake and the generator; the nacelle and main frame, including the wind turbine housing, bedplate and the yaw system; the turbine transformer; the machine controls; the tower; and the tower foundation.

D. INCENTIVE AMOUNTS. The tax assessment amount is 79% of the effective tax rate on most other types of newly constructed electricity-generating units.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

54.03 West Virginia state income tax credit for alternative fuel vehicles and refueling infrastructure

A. GENERAL DESCRIPTION. West Virginia provides an income tax credit in the amount ranging from \$7,500 - \$25,000 per alternative fuel vehicle and 50 - 62.5% of the cost of alternative fuel refueling infrastructure. *W. Va. Code §11-6D-1 et seq.; S.B. 465 (2011); S.B. 185 (2013); West Virginia Administrative Decision No. 14-187 AFTC, 05/29/2018; West Virginia Administrative Decision No. 14-286 AFTC, 15-147 AFTC, 16-230 AFTC, 17-125 P, CONS 15-0018, 07/08/2019.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayer purchasing or converting to alternative fuel vehicles and construction or purchase and installation of alternative fuel refueling infrastructure.

1. Taxpayer may be any natural person, corporation, limited liability company or partnership.

2. When the taxpayer is a pass-through entity treated like a partnership for federal and state income tax purposes, the credit allowed under this article for the year shall flow through to the equity owners of the pass-through entity in the same manner that distributive share flows through to the equity

owners and in accordance with any legislative rule the Tax Commissioner may propose.

C. **QUALIFYING ACTIVITY.** Taxpayer must purchase or convert to alternative fuel vehicles or construction or purchase and install alternative fuel refueling infrastructure. Alternative-fuel motor vehicle is a motor vehicle that as a new or retrofitted or converted fuel vehicle: (1) operates solely on one alternative fuel; (2) is capable of operating on one or more alternative fuels, singly or in combination; or (3) is capable of operating on an alternative fuel and is also capable of operating on gasoline or diesel fuel. Qualified alternative fuel vehicle refueling infrastructure is commercial property owned by the applicant for the tax credit and used for storing alternative fuels and for dispensing such alternative fuels into fuel tanks of motor vehicles, including but not limited to, compression equipment, storage tanks and dispensing units for alternative fuel at the point where the fuel is delivered. Alternative fuel includes: (1) compressed natural gas; (2) liquefied natural gas; and (3) liquefied petroleum gas.

D. **INCENTIVE AMOUNTS.** The tax credit amount is 35% of the purchase price of, or 50% of the cost of conversion to, an alternative fuel vehicle weighing less than 26,000 pounds, up to a maximum amount of \$7,500, and up to a maximum amount of \$25,000 for vehicles weighing more than 26,000 pounds. The tax credit amount is 50% of the cost of construction or purchase and installation of alternative fuel refueling infrastructure and 62.5% of the cost of construction or purchase and installation of public use alternative fuel refueling infrastructure.

1. Qualified costs do not include costs associated with exploration, development or production activities necessary for severing natural resources from the soil or ground.

E. **INCENTIVE LIMITS.** The maximum tax credit amount for alternative fuel refueling infrastructure is \$200,000 and for public use alternative fuel refueling infrastructure \$250,000. Beginning January 1, 2016 the maximum tax credit amount for alternative fuel refueling infrastructure is \$150,000 and for public use alternative fuel refueling infrastructure \$187,500.

F. **INCENTIVE TIMEFRAME.** The tax credit for alternative fuel vehicles and alternative fuel refueling infrastructure expires December 31, 2021. Unused tax credit for alternative fuel vehicles may be carried forward for 4 years. Unused tax credit for alternative fuel infrastructure may be carried forward.

1. Tax credits carried forward may be used even if taxpayer no longer owns vehicle that generated the tax credit.

G. **MISCELLANEOUS.**

54.04 West Virginia state business and operation tax abatement for solar photovoltaic generation

A. **GENERAL DESCRIPTION.** West Virginia provides a business and operation tax abatement in the amount 80% of the value on solar photovoltaic generation. *W. Va. Code §11-13-2o; S.B. 578 (2020).*

B. **ELIGIBLE TAXPAYERS.** The tax abatement is available to Taxpayer owners of solar photovoltaic generation electricity production facilities.

C. **QUALIFYING ACTIVITY.** Taxpayer must generate, produce or sell electricity produced utilizing solar photovoltaic methods.

D. **INCENTIVE AMOUNTS.** The tax abatement amount is 80% of the tax due.

E. **INCENTIVE LIMITS**

F. **INCENTIVE TIMEFRAME**

G. **MISCELLANEOUS**

55. Wisconsin State Tax Incentives for Renewable Energy and Energy Efficiency

55.01 Wisconsin state property tax exemption for biogas, solar and wind-energy systems

A. GENERAL DESCRIPTION. Wisconsin provides a property tax exemption in the amount of 100% of the tax on biogas, solar and wind-energy systems. *Wis. Stat. §70.111(18); Wis. Adm. Code Tax 12.50.*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of biogas, solar or wind-energy system property.

C. QUALIFYING ACTIVITY. Taxpayer must own biogas, solar or wind-energy system property. A biogas energy system is equipment which directly converts biomass, as defined under section 45K (c) (3) of the Internal Revenue Code, into biogas or synthetic gas, equipment which generates electricity, heat, or compressed natural gas exclusively from biogas or synthetic gas, equipment which is used exclusively for the direct transfer or storage of biomass, biogas, or synthetic gas, and any structure used exclusively to shelter or operate such equipment. A solar-energy system is equipment which directly converts and then transfers or stores solar energy into usable forms of thermal or electrical energy. A wind-energy system is equipment which converts and then transfers or stores energy from the wind into usable forms of energy.

1. Qualifying energy systems must be certified by the WI Department of Commerce.
2. Qualifying solar-energy systems do not include equipment or components that would be present as part of a conventional energy system or a system that operates without mechanical means.
3. Qualifying biogas and wind-energy systems do not include equipment or components that would be present as part of a conventional energy system.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Taxpayer must apply for the tax exemption by April 1 immediately following the assessment date for which the exemption is claimed.

G. MISCELLANEOUS.

55.02 Wisconsin state property tax financing option for renewable energy and energy-efficiency projects

A. GENERAL DESCRIPTION. Wisconsin provides a property tax financing option for municipalities for renewable energy and energy-efficiency projects. *Wis. Stat. §66.0627 (8); A.B. 255 (2009).*

B. ELIGIBLE TAXPAYERS. The tax financing is available to Taxpayer installing an energy efficiency improvement or a renewable resource application to Taxpayer's residential property.

C. QUALIFYING ACTIVITY. Taxpayer must install and finance an energy efficiency improvement or a renewable resource application to Taxpayer's residential property. Local governments may offer property tax financing for renewable energy and energy efficiency improvements proposed by property owners. An energy efficiency improvement is an improvement to a residential premises that reduces the usage of energy or increases the efficiency of energy usage.

D. INCENTIVE AMOUNTS

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS.

55.03 Wisconsin state sales tax exemptions for renewable energy systems

A. GENERAL DESCRIPTION. Wisconsin provides a sales tax exemption in the amount of 100% of the tax on renewable energy systems. *Wis. Stat. §77.54(56); Wis. Stat. §77.54(30)(a)(1m); Wis. Stat. §196.378(1)(ar); A.B. 40 (2011).*

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer purchasers of biomass fuel and wind, solar, and anaerobic digester equipment.

C. QUALIFYING ACTIVITY. Taxpayer must: (1) purchase biomass fuel or biofuel; (2) purchase wind, solar, or anaerobic digester equipment; or (3) sell, store, use, or otherwise consume electricity or energy produced by a qualifying system. Qualifying systems include biomass, wind and solar systems.

1. Biomass includes wood, energy crops, biological wastes, biomass residues, and landfill gas. Biomass residues includes harvesting of timber or the production of wood products, including slash, sawdust, shavings, edgings, slabs, leaves, wood chips, bark and wood pellets manufactured primarily from wood or primarily from wood residue.

2. Biofuel includes vegetable oil and animal fats that are converted into motor vehicle fuel.

3. Qualifying equipment must be capable of producing at least 200 watts of alternating current or 600 British thermal units per day.

4. Qualifying equipment does not include an uninterruptible power source that is designed primarily for computers.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the sales tax due.

E. INCENTIVE LIMITS

F. INCENTIVE TIMEFRAME

G. MISCELLANEOUS

55.04 Wisconsin state income tax credit for ethanol and biodiesel fuel pump

A. GENERAL DESCRIPTION. Wisconsin provides an income tax credit in the amount 25% of the installation or retrofit costs of ethanol and biodiesel fuel pumps. *Wis. Stat. §71.07(5j); Wis. Stat. §71.28(5j)(b); S.B. 279 (2010).*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers installing or retrofitting ethanol and biodiesel fuel pumps.

1. Pass-through entities such as tax-option (S) corporations, partnerships, and limited liability companies pass the tax credit along to their shareholders, partners or members, as the case may be, in proportion to their ownership interests

C. QUALIFYING ACTIVITY. Taxpayer must install or retrofit pumps capable of dispensing motor vehicle fuel marketed as gasoline and 85% or more ethanol, or motor vehicle fuel marketed as diesel fuel, and 20% biodiesel fuel or that mix fuels from separate storage tanks and allow the end user to choose the percentage of gasoline replacement renewable fuel or diesel replacement renewable fuel in the motor vehicle fuel dispensed.

D. INCENTIVE AMOUNTS. The tax credit amount is 25% of the installation or retrofit costs of the ethanol and biodiesel fuel pumps.

E. INCENTIVE LIMITS. The maximum tax credit amount is \$5,000 per service station.

F. INCENTIVE TIMEFRAME. The tax credit expires December 31, 2017. Unused tax credit may be carried forward 15 years.

G. MISCELLANEOUS.

55.05 Wisconsin state income tax credit for vehicle and energy-efficiency research activities

A. GENERAL DESCRIPTION. Wisconsin provides an income tax credit in the amount of 10% of the increase in qualifying research expenses paid or incurred in the current taxable year over the base period research expenses. *Wis. Stat. §71.28; Wis. Stat. §71.47; Wis. Stat. §71.07(4k); Wisconsin Dept. Rev. Tax Publication No. 131, 02/01/2014.*

B. ELIGIBLE TAXPAYERS. The tax credit is available to Taxpayers paying or incurring qualifying research expenses.

1. Taxpayer may not be a pass-through entity, including partnerships, limited liability companies, and tax-option (S) corporations. Taxpayer may not be a partner, member or

shareholder of a pass-through entity. Taxpayer may be a limited liability company or publicly traded partnership that is treated as a corporation under Wisconsin law.

C. QUALIFYING ACTIVITY. Taxpayer must pay or incur qualifying research activities. Qualifying research activities consist of research into the design of energy efficient lighting systems, building automation and control systems, fuel cell, electric and hybrid drives for vehicles, including designing vehicles powered by fuel cell, electric and hybrid drives and improving the production processes for vehicles and fuel cell, electric and hybrid drives.

D. INCENTIVE AMOUNTS. The tax credit amount is 10% of the increase in qualifying research expenses paid or incurred in the current taxable year over the base period research expenses. Qualifying research expenses are defined in IRC §41 as the sum of in-house research expenses and 65% of contract research expenses (75% for amounts paid to qualifying research consortia). The base amount is the product of Taxpayer's fixed-base percentage and the average annual gross receipts for the four tax years preceding the tax credit year.

1. Taxpayer may elect to calculate the research credit using the alternative computation method provided under IRC §41(c)(4).

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. The tax credit must be claimed within 4 years after the unextended due date of the return to which it relates. Unused tax credit may be carried forward 15 years.

G. MISCELLANEOUS.

B. ELIGIBLE TAXPAYERS. The tax exemption is available to Taxpayer owners of electric bicycles.

C. QUALIFYING ACTIVITY. Taxpayer must own electric bicycles. An electric bicycle is a bicycle that is equipped with fully operative pedals for propulsion by human power and an electric motor of 750 watts or less, and that meets the requirements of any of the following classifications: (1) Class 1 electric bicycle is an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour; (2) Class 2 electric bicycle is an electric bicycle that may be powered solely by the motor and is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour; or (3) Class 3 electric bicycle is an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour.

D. INCENTIVE AMOUNTS. The tax exemption amount is 100% of the property tax due.

E. INCENTIVE LIMITS.

F. INCENTIVE TIMEFRAME. Taxpayer must apply for the tax exemption by April 1 immediately following the assessment date for which the exemption is claimed.

G. MISCELLANEOUS.

55.06 Wisconsin state property tax exemption for electric bicycles

A. GENERAL DESCRIPTION. Wisconsin provides a property tax exemption in the amount of 100% of the tax on electric bicycles. *Wis. Stat. §70.111(1); Wis. Adm. Code Tax 12.50; A.B. 132 (2019).*

**56. Wyoming State Tax Incentives
for Renewable Energy and
Energy Efficiency**



What a law firm
should be.SM