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STATE OF VERMONT
OFFICE OF LEGISLATIVE COUNCIL

MEMORANDUM

To: Rep. Tony Klein

From: Aaron Adler, Legislative Counsel
Elizabeth McDonald, Law Clerk (2013)
Megan McLaurin, Law Clerk (Jan. 2015)
Catherine Craig, Law Clerk (Oct. 2015)

Date: October 23, 2015 (update)

Subject: Timeline and summary of renewable energy acts

Below is a timeline of renewable energy legislation passed by the General Assembly since the late 1990s. Following the timeline are block copies of the act summaries that this office previously published. Please let us know if you have any questions or need further research.

A. Timeline

	Year:	What was done:	Vote:
1.	1998 –	Act 136, established net metering - non-farm less than 15 kilowatts - farm less than 100 kilowatts	Passed by voice votes
2.	2000 –	Act 157, increased size of farm net metering	Passed by voice votes
3.	2002 –	Act 145, increased farm net metering - farm net metering increased to 150 kilowatts	Passed by voice votes
4.	2003 –	Act 69, created chapter on renewable energy programs	Passed S. 21-3 Passed H. voice vote
5.	2005 –	Act 61, established SPEED program	**Passed H. 94-35*** Passed S. voice vote
6.	2006 –	Act 168, set GHG reduction goals	Passed S. 25-0 Passed H. voice vote
7.	2006 –	Act 208, required PSB expand scope of net metering; amendments to SPEED	Passed by voice votes
8.	2008 –	Act 92, increased net metering - non-farm to 150 kilowatts - farm to 250 kilowatts; 20% electric from SPEED by 2017; created education tax on wind	Passed S.23-6 Passed H. 130-1

9.	2009 - Act 45, amended SPEED; created standard offer; allowed for siting of wind on state lands;	**Passed H. 88-44*** **Passed S. 16-10***
10.	2010 – Act 159, various amendments concerning renewable energy	Passed by voice votes
11.	2011 – Act 47, made amendments to net metering and SPEED	Passed S. voice vote Passed H. 132-4
12.	2012 – Act 125, increased solar net metering to 10 kilowatts	Passed by voice votes
13.	2012 – Act 170, 75% total renewables by 2032; recodified and expanded standard offer	Passed by voice votes
14.	2013 – Act 38, authorized the House and Senate Natural Resources Committees to review recommendations of Governor's Energy Generation Siting Policy Commission	Passed by voice votes
15.	2013 – Act 87, financing and investment in clean energy through VEDA and the Treasurer	Passed by voice votes
16.	2013 – Act 89, various amendments on energy efficiency and renewable energy	Passed S. voice vote **Passed H. 109-27***
17.	2014 – Act 99, various amendments on net metering; new net metering program in 2017	Passed S. 28-0 Passed H. voice vote
18.	2015 –Act 56, establishing a renewable energy standard	**Passed H. 121-24*** **Passed S. 22-6***

* The negative votes for the bolded votes are listed below:

Act 61 (S.52; 2005) - established SPEED program; passed H. 94-35; negative votes:

Allaire of Rutland City	Hudson of Lyndon	Myers of Essex
Allard of St. Albans Town	Johnson of Canaan	Otterman of Topsham
Baker of West Rutland	Kennedy of Chelsea	Parent of St. Alban's City
Bartlett of Dover	Kilmartin of Newport City	Peaslee of Guildhall
Bostic of St. Johnsbury	Larocque of Barnet	Rodgers of Glover
Clark of St. Johnsbury	Larrabee of Danville	Schiavone of Shelburne
DePoy of Rutland City	LaVoie of Swanton	Shaw of Derby
Donaghy of Poultney	Lawrence of Lyndon	Smith of Morristown
Endres of Milton	Marcotte of Coventry	Sunderland of Rutland Town
Flory of Pittsford	Metzger of Milton	Winters of Swanton
Houston of Ferrisburgh	Morley of Barton	Winters of Williamstown
Hube of Londonderry	Morrissey of Bennington	

Act 45 (H.446; 2009) - amended SPEED; created standard offer; passed H. 88-44, passed S. 16-10; negative votes:

Acinapura of Brandon	Helm of Castleton	McNeil of Rutland Town
Adams of Hartland	Higley of Lowell	Morley of Barton

Ainsworth of Royalton
Baker of West Rutland
Branagan of Georgia
Brennan of Colchester
Canfield of Fair Haven
Clark of Vergennes
Clerkin of Hartford
Crawford of Burke
Devereux of Mount Holly
Dickinson of St. Albans Town
Donaghy of Poultney
Fagan of Rutland City
Hube of Londonderry
Hubert of Milton
Johnson of Canaan
Keenan of St. Albans City
Kilmartin of Newport City
Koch of Barre Town
Komline of Dorset
Larocque of Barnet
Lawrence of Lyndon
Lewis of Derby
Marcotte of Coventry
McAllister of Highgate
McDonald of Berlin
Morrissey of Bennington
O'Donnell of Vernon
Pearce of Richford
Peaslee of Guildhall
Perley of Enosburg
Reis of St. Johnsbury
Rodgers of Glover
Savage of Swanton
Scheuermann of Stowe
South of St. Johnsbury
Wheeler of Derby
Winters of Williamstown
Wright of Burlington

Senators voting in the negative: Brock, Choate, Doyle, Kitchel, Maynard, Mazza, Mullin, Scott, Sears, and Starr.

Act 89 (H.520; 2013) - various amendments on energy efficiency and renewable energy; passed H.109-27: negative votes:

Batchelor of Derby
Beyor of Highgate
Bouchard of Colchester
Brennan of Colchester
Burditt of West Rutland
Dickinson of St. Albans Town
Donaghy of Poultney
Fagan of Rutland City
Gage of Rutland City
Hubert of Milton
Johnson of Canaan
Juskiewicz of Cambridge
Koch of Barre Town
Larocque of Barnet
Lawrence of Lyndon
Mitchell of Fairfax
Morrissey of Bennington
Pearce of Richford
Savage of Swanton
Shaw of Derby
Shaw of Pittsford
Smith of New Haven
Strong of Albany
Terenzini of Rutland Town
Turner of Milton
Van Wyck of Ferrisburgh
Winters of Williamstown

Act 56 (H. 40; 2015**) -** established a renewable energy standard; passed H. 121-24, passed S. 22-6; negative votes:

Batchelor of Derby
Burditt of West Rutland
Cupoli of Rutland City
Dame of Essex
Dickinson of St. Albans Town
Graham of Williamstown
Higley of Lowell
Hubert of Milton
Komline of Dorset
Lefebvre of Newark
Martel of Waterford
McCoy of Poultney
Morrissey of Bennington
Parent of St. Albans City
Shaw of Derby
Smith of New Haven
Strong of Albany
Terenzini of Rutland Town
Turner of Milton
Van Wyck of Ferrisburgh
Viens of Newport City
Willhoit of St. Johnsbury
Browning of Arlington

Senators voting in the negative: Benning of Caledonia District; Collamore of Rutland District; Degree of Rutland District; Flory of Rutland District; Rodgers of Essex-Orleans District; Start of Essex-Orleans District

B. Act Summaries

1. Act No. 136, H.605

General Permits for Self-generated Electricity

This act allows users of small electrical generating systems (less than 15 kilowatts (AC) capacity and employing a renewable energy source) or farm systems of less than 100 kilowatts (AC) capacity that produce electricity from the anaerobic digestion of agricultural waste to use a net metering system for the purchase and sale of electricity from and to an electric company. With a net metering system in place, the electric company measures the electricity produced and consumed by a user. If the user consumes more electricity than was produced during the billing cycle the user is charged the difference. If the user produces more electricity then was consumed during the billing cycle, the user receives a credit. Any such credits must be used within the calendar year.

This program is available on a first-come, first-served basis until the cumulative generating capacity of net metering systems equals 1.0 percent of the electric company's peak demand during 1996.

Effective Date: April 21, 1998

2. Act No. 157, H.705

Particular Proceedings of the Public Service Board and Net Metering

This act makes several changes with respect to electric power. The net metering statute is amended to increase the potential size of a farm system, allow for farms to combine their manure and to permit some larger systems. The act also authorizes a fuel cell demonstration project, and a study of the safety of small emergency backup generation systems.

Effective Date: July 1, 2000

3. Act No. 145, S.138

Electric labeling; standards; qualifying facilities selling electricity; cost mitigation farm net metering

This act authorizes the Public Service Board to establish standards for the labeling of electricity for retail sale as to price, terms, sources and objective environmental impacts. This act authorizes the Public Service Board to issue qualified cost mitigation charge orders for buydowns or other appropriate modifications, except buyouts, of power

purchase contracts between independent power producers with a capacity of 900 kilowatts or greater and Vermont Electric Power Producers, Inc. A uniform mitigation charge will be imposed on the consumption of all electricity within the state of Vermont and the charge will be clearly delineated on ratepayer bills. The Vermont Qualifying Facility Contract Mitigation Authority is established, using personnel of the Vermont Economic Development Authority to issue mitigation bonds to capitalize the cost mitigation order.

This act amends the self-generation and net metering statute so that anaerobic electric-generating systems on farms can be up to 150 kilowatts capacity and can credit on-site generation against all meters associated with the farm. The electric company will receive any tradable renewable credits for which the farm system is eligible if the system is designed to produce less energy than the annual load of the meters associated with the farm. An electric company may contract to purchase all or a portion of the output from a farm system which has a certificate of public good.

In addition, this act exempts equipment in an off-grid home or business energy system and solar hot water equipment from the Vermont sales tax. Effective Date: July 1, 2002

4. Act No. 69, S.57

Public Service; utility companies; energy efficiency; renewable electric generation

This act adds a new statutory chapter addressing renewable energy programs. The chapter authorizes electric utilities upon approval of the Public Service Board to establish renewable pricing programs to allow electric consumers to voluntarily participate in programs that increase utilization of renewable energy sources by investing in renewable energy projects or by purchasing tradeable renewable energy credits. The Public Service Board is mandated to develop draft legislation proposing a renewable portfolio standard that might allow the Board to require a minimum percentage of renewable energy sources be included in the power supply portfolio for each seller of retail electricity in Vermont. Another section permits the Board to approve regulation of electric companies that differ from the traditional rate base, rate-of-return ratemaking regulation.

The act appropriates $626,000.00, plus any unappropriated balance, from the petroleum violation escrow fund for use by the Department of Public Service in conjunction with the Department of Economic Development to establish a program of incentive payments to promote the installation of small scale renewable energy systems in Vermont residences and businesses.

The act amends the Department of Public Service statutory directive to formulate a 20-year electric plan for the state. A new plan shall be adopted no later than January 1, 2004 and submitted to the General Assembly.

In addition, the act requires a study whether waste-to-energy which is part of an integrated waste management system should be designated as a renewable energy source.

Effective Date: From passage, June 17, 2003.

5. Act No. 61, S.52

Public service; portfolio standards; renewable energy; SPEED program; transmission planning

This act establishes requirements of the state's retail electricity providers with respect to the use of new renewable energy sources. In particular, it requires that each retail electricity provider supply an amount of energy equal to its total incremental energy growth between January 1, 2005 and January 1, 2012 through the use of electricity generated by new renewable resources. (Note that since the focus is on growth of demand, incentives for conservation are implicitly encouraged and are of equal value.) It provides that the retail electricity provider may meet this requirement through eligible new renewable energy credits, new renewable energy resources with renewable energy credits still attached, or a combination of those credits and resources. New renewable energy is defined to include increases in efficiency or output from existing sources, provided that in the case of combustion, the system must result in an incrementally higher level of energy conversion efficiency or significantly reduced emissions. It also provides a number of conditions on the imposition of the requirement: (1) no retail electricity provider shall be required to provide in excess of a total of 10 percent of its calendar year 2005 retail electric sales with electricity generated by new renewable resources; (2) a retail provider may obtain an exemption from the requirement if the retail electricity provider demonstrates and the public service board determines that compliance with the standard would impair the provider's ability to meet the public's need for energy services after safety concerns are addressed, at the lowest present value life cycle cost, including environmental and economic costs; (3) in lieu of or in addition to purchasing tradeable renewable energy credits to satisfy the portfolio requirements, a retail electricity provider in this state may pay to a renewable energy fund established by the public service board an amount per kilowatt hour as established by the board, or the board may require any proportion of this amount to be paid to the energy conservation fund established under 30 V.S.A. § 209(d); (4) in the case of members of the Vermont Public Power Supply Authority, portfolio requirements may be met in the aggregate. The act requires the public service board to issue progress reports to the general assembly, with respect to Vermont's load growth, the use of renewable energy credits, the implementation of the SPEED program (explained in the next paragraph), an assessment of the supply portfolios of Vermont retail electricity providers and the resources available to meet new supply requirements likely to be triggered by the expiration of major power supply contracts, and other specified matters.

The act also creates a Sustainably Priced Energy Enterprise Development (SPEED) program. The SPEED program is to encourage the in-state development of renewable sources of electricity, which are referred to as "qualifying SPEED resources" as well as the development of certain combined heat and power facilities that may consume nonrenewable sources of fuel, as long as the system meets specified requirements, which include a requirement that the system as a whole have total system efficiency of at least 65 percent. Under the SPEED program, the public service board may: designate an agent to purchase and resell electricity generated by the project; allow the developer of a SPEED resource that is one megawatt or less to sell that power under a

long term contract that is established at a specified margin below the hourly spot market price; encourage Vermont's retail electricity providers to secure long-term contracts for renewable energy that are anticipated to be below the long-term market price, over the lives of the projects; make available to Vermont retail electricity providers for purchase through the SPEED program, on a pro rata basis, a specified portion of the power generated under the program; create a mechanism by which a retail electricity provider may establish that it has a sufficient amount of renewable energy, or qualifying resources in its portfolio so that equity requires that the retail electricity provider be relieved from provisions that would require the purchase of SPEED power; release an applicant from meeting a requirement in 30 V.S.A. § 248(b)(2) that there be established a need for the facility. The act provides that if the board finds that the amount of renewable energy SPEED resources coming into service after January 1, 2005, but prior to January 1, 2013, exceeds total statewide growth in demand during the period of time between January 1, 2005 and January 1, 2012, or if it finds that the amount of qualifying SPEED resources exceeds 10 percent of total statewide load for calendar year 2005, the portfolio standards established under this act shall not be in force. In this determination, electricity produced at all facilities owned by or under long-term contract to Vermont retail electricity providers, whether it is generated inside or outside Vermont, that is new renewable energy shall be counted. If by July 1, 2012, the board determines that the goals have not been met, the portfolio standards shall go into effect in one year. The act makes SPEED resources eligible for VEDA funding.

The act requires the public service board to establish or adopt a system of tradeable renewable energy credits for renewable resources that may be earned by electric generation qualifying for the renewables portfolio standard. The act allows the public service board and department to encourage certain efficient combined heat and power facilities, and to allow retail electricity companies credit for efforts taken to encourage efficient combined heat and power facilities, by the state's efficiency utility. The act repeals the $17.5 million cap on the expenditures that may be made by the efficiency utility and provides that the amount of the charge shall be reviewed for unrealized energy efficiency potential and shall be adjusted as necessary in order to realize all reasonably available, cost-effective energy efficiency savings. It allows the board to exempt a customer from the charge during a particular year if the customer demonstrates that, during the preceding year, it implemented an extraordinary amount of cost-effective energy efficiency at the customer's own expense or incurred extraordinary costs on those measures and got no reimbursement for those measures. It requires the board to consider the retail rate impacts of the actions taken by the efficiency utility.

The act also requires that on or before September 1, 2006, the public service board shall establish by rule or order standard provisions, including applicable fees that are required to cover the total cost of interconnection to be paid by the qualified distributed generator, for agreements providing for interconnection between the facilities of a retail electricity provider under the jurisdiction of the board and the facilities of a qualified distributed generator.

The act expresses state policy that is to be urged by the state before the New England Independent System Operator, and in proceedings before the Federal Energy Regulatory Commission, and before other tribunals. The policy would be that all available resources - transmission, strategic generation, targeted energy efficiency, and

demand response resources - should be treated comparably in analysis, planning, and access to funding. The policy would provide that the principal criterion for approving and selecting a regional transmission solution should be whether it is the least-cost solution to a system need on a total cost basis.

The act establishes requirements with respect to transmission planning within the state, requiring VELCO and its co-owners to submit ten-year plans. The objective of the plans shall be to identify the potential need for transmission system improvements as early as possible, in order to allow sufficient time to plan and implement more cost-effective nontransmission alternatives to meet reliability needs, wherever feasible. It also would identify the demand or supply parameters that generation, demand response, energy efficiency, or other nontransmission strategies would need to address to resolve the reliability deficiencies identified. It establishes a public meeting process pursuant to which a utility preparing the plan would present a draft of the plan and facilitate a public discussion to identify and evaluate nontransmission alternatives. Before the department of public service takes a position before the board concerning the construction of new transmission or a transmission upgrade with significant land use ramifications, the department shall hold one or more public meetings with the legislative bodies or their designees of each town, village, or city that the transmission lines cross, and shall engage in a discussion with the members of those bodies or their designees and the interested public as to the department's role as public advocate.

The act requires the department of public service on or before January 1, 2006 to investigate and report to specified legislative committees with respect to matters, including the extent to which an aggressive regionwide implementation of energy efficiency and renewable energy programs might affect the price of spot market power in the New England ISO through the effect of those programs on bid prices, where the clearing price of the electric market is reduced due to reduced electric demand.

The act allows the public service board to embark on performance-based ratemaking on its own motion or on motion of the department of public service, and not only at the request of the utility. It makes it clear that these programs may offer incentives, decreasing the extent to which the financial success of distribution utilities between rate cases is linked to increased sales to end use customers and may be threatened by decreases in those sales.

The act requires the department of public service to report back to the general assembly with recommendations regarding a statewide energy code for commercial buildings. The act requires the public service board to report to the legislature with an explanation of the results of any alternative form of regulation approved by the board, and if no such form has been approved, an explanation of why no such form has been approved. It requires biennial reports to the legislature from the board on how the state might best continue to meet its energy goals, including whether the state should meet its load growth over the succeeding 10 years, up through 2023, by a continuation of the SPEED program.

The act provides that a person may become a member of a cooperative by purchasing and paying the cooperative for renewable energy certificates or other environmental attributes associated with the generation of electricity.

It requires the department of public service to report to the general assembly by January 15, 2006 with recommended procedures and efforts and initiatives to date

concerning the involvement of the public in the development and siting of wind energy facilities. It requires the department of public service to study and make recommendations on the feasibility of establishing grant programs for new renewable generation systems on farms. And finally, it requires the public service board and the department of public service to report to the general assembly by no later than January 15, 2006 and again by no later than January 15, 2007 with respect to the net revenue loss and the net revenue gain to Vermont ratepayers, utilities, and Vermont-based generators as a result of any tariff relating to locational generation capacity; and the options available to mitigate the cost impacts of any such tariff.

Effective Date: July 1, 2005

6. Act No. 168, S.259

Conservation; greenhouse gas reduction goals

This act establishes greenhouse gas reduction goals with respect to those greenhouse gas emissions from within the state and from outside the state's boundaries caused by the use of energy within the state. The act establishes the goals in order to make an appropriate contribution to achieve the regional goals of reducing emissions of greenhouse gases from the 1990 baseline by 25 percent by January 1, 2012, by 50 percent by 2028, and, if practicable using reasonable efforts, by 75 percent by January 1, 2050. The act requires the secretary of natural resources to coordinate with specified entities in developing a climate change action plan, and to present the plan to certain committees of the general assembly by September 1, 2007. The act requires all state agencies to consider effects on greenhouse gas emissions in their

Decision-making procedures with respect to the purchase and use of equipment and goods; the siting, construction, and maintenance of buildings; the assignment of personnel; and the planning, design, and operation of programs, services, and infrastructure.

Effective Date: July 1, 2006

7. Act No. 208, H.859

Conservation; public service; net metering; commercial building energy standards

This act, titled the Vermont energy security and reliability act, requires the implementation of a process for engaging the public in power planning issues, focusing on energy supply choices facing the state beginning in 2012, and assisting communities in identifying local energy opportunities and developing community energy plans or climate change action plans. This process is to be developed by the department of public service and the joint energy committee, and is to be implemented through a request for proposal (RFP) process.

The act amends the section that involves the granting of a certificate of public good for the removal of a dam that formerly was involved in the generation of power to require that consideration be given to the dam's potential for future power.

It expands the list of projects eligible to receive funding under the clean energy development fund by allowing the fund to finance: distribution line upgrades to three phase lines, as needed to serve a farm generating system; certain biomass and biofuels projects; and, until the end of 2008, super efficient buildings. It establishes a process by which the fund shall be managed to include the creation of a clean energy development fund advisory committee (consisting of the commissioner of public service and two legislators), which in turn is required to appoint members of a clean energy development fund investment committee. It requires the commissioner to develop plans, budgets, and program designs, all of which are subject to review by the advisory committee and the approval of the investment committee. It requires the commissioner to adopt rules to carry out the program. The act requires the commissioner to make specific grant decisions, acting jointly with the investment committee, until the rules have been adopted. It allows up to five percent of amounts appropriated to be used for administrative costs related to the fund.

It gives the commissioner of public service the authority to amend the residential building energy standards (RBES) and makes a technical amendment to those rules. It establishes commercial building energy standards (CBES) according to a regulatory system that generally reflects the approach currently in law with respect to residential building energy standards. However, in addition to being enforceable by means of a right of action on behalf of a purchaser of a building that is not up to standards, the CBES are enforceable in district court, and any violation may be subject to a civil penalty of not more than $250.00 per day. In addition, this section contains a requirement that an architect, an engineer, or a builder certify compliance with the standards by means of an affidavit, thus bringing into play existing law that provides substantial criminal penalties for false swearing.

The act gives regional planning commissions explicit power to inventory critical and vulnerable local facilities and work with utilities and others to propose and evaluate alternative sites for distributed power facilities that might serve those critical facilities in times of extended regional power disruption. It adds additional objectives to be accorded particular emphasis by the public service board when it is establishing a utility charge to fund the efficiency utility; those objectives being: to reduce the size of future power purchases, to reduce the generation of greenhouse gases, to limit the need to upgrade transmission and distribution facilities, and to minimize the cost of electricity.

The act requires the public service board to design a proposed electricity affordability program in the form of draft legislation, to be developed with the aid of a collaborative consisting of representatives of interests specified in the act. It requires the department of public service, in conjunction with the department for children and families and the department of disabilities, aging and independent living, to compare overall assistance provided to low income families in Vermont and throughout the country.

The act requires the public service board to approve rate designs to encourage the efficient use of natural gas and electricity, including consideration of inclining block rates for residential customers, with an initial block of low cost power for all residential customers. It revises the net metering law to clarify the definition of renewable energy sources, and to provide that certain unused credits shall revert to a utility if not used within 12 months. It provides that any unused credit reverting to the electric company

shall be considered SPEED resources. It allows the board to raise the 1.0 percent cap on net metering without a joint application from a utility, adjusts how the cap is established, and allows utilities to charge certain fees for systems of greater than 15 kilowatt capacity.

It allows a utility and the owner of a farm system to agree to output that exceeds 150 kilowatts under certain conditions. It requires the public service board to expand the scope of net metering and, in this process, to consider expanding the maximum capacity of systems in the program and to consider allowing group net metering, as determined by the board.

The act combines two biennial SPEED reports into one, requires timely decisions on applications for SPEED resources, and encourages joint efforts by regulated companies to purchase power. It requires the agency of human services to provide information regarding the efficiency utility to participants in the home heating fuel assistance program. It requires the department of public service to study the costs and benefits of establishing a coordinated program to provide efficiency to all buildings, regardless of the source of fuel and the owner's income.

Effective Date: July 1, 2006; except that Sec. 5, amending the clean energy development fund, takes effect upon passage.

8. Act No. 92, S.209

Act 250; energy efficiency

The act clarfies that the agricultural economic development special account shall be available for wind, solar, or other technology that consumes a resource at or below its natural regeneration rate. It amends the Act 250 definition of farming, an exempt activity, to include on-site storage, preparation, production, and sale of energy from agricultural waste or products produced off the farm, as long as 51 percent is from on-farm feedstock. The act makes it a state goal to produce 25 percent of energy consumed in VT from renewable sources, particularly from farms and forests, by 2025. It requires the secretary of agriculture, food and markets, by 1/15/09, to present legislative committees with a plan to achieve this goal. This plan is to be updated triennially, and is to be the subject of an annual progress report every January 15. By 1/15/09, the department of public service is required to present legislative committees with an updated comprehensive energy plan which incorporates this plan.

The act revises the net metering law, raising the existing cap on non-farm net metering systems to 150 kw capacity; allowing qualified micro-combined heat and power systems of 20 kw or less that meet air quality standards; increasing the maximum size of "farm system" from 150 to 250 kw; allowing use of "group net metering systems" subject to various provisions controlling use of farm systems; limiting net metering systems to customers within the service area of the same electric company; allowing multiple buildings of a municipality to qualify; providing that a union or district school facility shall be considered in the same group system as its member municipalities that are located within the same utility service area; and granting the public service board the authority to allow noncontiguous groups, if to do so promotes the general good. It also increases a company's system cap regarding how much net metered power it must accept,

from one percent up to two percent of company's peak demand in 1996. It repeals the provision that allows an electric company to receive from farm systems any tradable renewable credits for which the farm system is eligible. It repeals provisions allowing up to 10 larger systems and allowing an electric company to contract to receive output from group systems, as well as farm systems, in excess of 250 kw. It requires the board to adopt rules regarding the application of the section 248 anesthetics criteria to an application for a certificate for a single net-metered wind turbine that is less than 150 feet in height.

The act also requires the public service board to create a rule or order governing application, issuance, and revocation of a certificate of public good (CPG) for temporary meteorological stations. These stations are exempt from being reviewed for being in the company's electric plan. The act allows the board to waive section 248 requirements that are not applicable to meteorological stations, but does not allow it to waive review of construction effects on aesthetics, historic sites, air and water purity, natural environment, and public health and safety. It requires these applications be processed so as to assure that a proposal for decision shall be issued within five months of receipt of a complete application. It requires the removal of temporary towers upon expiration of the certificate of public good.

It requires the public service board to create a standard contract price or a set of maximum and minimum provisions, or both, for qualifying SPEED resources over 1 MW of capacity. In setting a standard contract price, the board shall consider the goal of developing qualified SPEED resources, least cost analysis, and the impact on electric rates. It adjusts the statutory mechanism for determining whether portfolio standards will be imposed. In particular, it provides that if the board determines, by 1/1/13, that resources that are brought into service between 1/1/05 and 1/1/12 or that are the subject of a certificate of public good issued during that time, when combined, exceed the growth in statewide retail electric sales during that period of time, and that SPEED resources then produce at least five percent of 2005 retail sales, or if SPEED resources provides 10 percent or more of 2005 retail sales, then the portfolio standards shall not be in force. The act makes it a state goal to assure that 20 percent of total statewide electric retail sales before 7/1/17 shall be generated by SPEED resources. The board is to report to legislative committees on progress in meeting the goal by 12/31/11 and again by 12/31/13, in the latter case, if necessary, with appropriate recommendations to make attaining the goal more likely

The act makes it clear that when local government provides tax breaks for alternate energy sources, renewable net metering systems are eligible. It imposes a wind-powered electric generating facilities tax as an alternative education property tax on buildings and fixtures used in the generation of electric energy from wind. All of the revenues raised from the tax will be deposited in the education fund. Municipal property taxes on wind-powered generating facilities would not be affected. The rate of the tax shall be $0.003 per kwh produced, as determined by the public service board, but may not be less than if the facility were operating at 15 percent of the facility's average capacity factor.

It also allows the pass through to individuals and corporations of 100 percent of the Vermont property portion of the business solar energy investment component of the federal investment tax credit. This pass-through would be effective for taxable year 2008

and after. The act transfers $20,000 annually from the clean energy development fund to the general fund to support solar energy income tax credits.

Effective Date: July 1, 2008.

9. Act No. 45, H.446

Renewable energy and energy efficiency
The Vermont Energy Act of 2009

Sec. 1 is the designation section.

Secs. 2 through 4a contain amendments to the existing Sustainably Priced Energy Enterprise or "SPEED" program to require the public service board (PSB) to issue standard offers for renewable energy plants sited in Vermont.

Sec. 2 adds to existing law new definitions related to the standard offer. Among these definitions, the term "plant" is defined as renewable energy, with a group of common facilities such as a wind project being one "plant." The term "commissioned" refers to when a plant is put into operation. The term "SPEED facilitator" refers to the entity already appointed by the public service board, under existing law, to implement the SPEED program.

Sec. 3 amends existing law to allow municipal utilities that are members of the Vermont Public Power Supply Authority to meet the standard offer requirements as a group rather than individually.

Sec. 4 contains the central provisions regarding the standard offer. It:

a. Requires the PSB to implement the standard offer through the SPEED facilitator.

b. Requires the PSB to put a standard offer program for renewable plants in effect by September 30, 2009.

c. Sets the term of a standard offer contract at 10–20 years, except that contracts for solar power will be for 10–25 years.

d. Caps each standard offer plant at 2.2 MW and the total capacity allowed for all standard offer plants at 50 MW.

e. Establishes four criteria for determining a cost-based price to be paid under the standard offer: (1) set generic costs for each category of renewable energy, (2) subtract a generic assumption reflecting reasonably available tax credits and other incentives (e.g., grants), (3) add a rate of return for the plant owner on its capital investment equal to the highest rate of return paid to a Vermont utility, and (4) make an adjustment up or down if needed to provide a sufficient incentive for rapid development of renewable energy.

f. Establishes an initial set of prices and requires that the PSB review them before they go into effect on September 30, 2009. The PSB is to conduct an informal review by September 15, 2009 of the initial prices to see if they represent a reasonable approximation of the price that would be paid using the act's pricing criteria and is to set an interim price if it concludes the prices do not constitute such a reasonable approximation.

g. Requires the PSB to set prices based on a full analysis under the act's pricing criteria no later than January 15, 2010.

h. Provides that the PSB shall reevaluate the cost-based prices at least every two years starting in 2012.

i. States that once the PSB sets cost-based prices, those prices shall be in effect for new contracts after the prices are set. Previously signed contracts shall remain at the price set out in the contract.

j. Requires all Vermont utilities to purchase the power generated by the plants that accept the standard offer, with the costs distributed pro rata according to a utility's share of retail electric sales. The purchase shall include all capacity rights associated with the standard offer projects, allocated according to the same formula. Utilities shall receive a credit against these costs for renewable plants that are 2.2 MW or less that they put into operation after July 15, 2009 and shall recover from ratepayers their reasonable costs associated with these contracts. The PSB shall determine how the costs of the standard offer are allocated among a utility's ratepayers.

k. Provides that all renewable energy credits associated with the plants that accept the standard offer shall be transferred to the utilities, except that the owner of an agricultural methane plant shall keep those credits and be able to sell them on the market.

l. Requires the PSB to determine: how the SPEED facilitator's expenses are allocated among the utilities and the plant owners, the manner and timing of payments to plant owners and by utilities, reporting requirements, and the interconnection and metering of the plants that accept the standard offer.

m. Requires that any wood biomass plant that wants to participate in the standard offer shall achieve a fuel efficiency of 50 percent.

n. States that a Vermont utility is not eligible for the standard offer, and that the standard offer does not preclude a voluntary contract between a utility and a plant owner.

o. Protects the state from liability for the costs of the SPEED program, including the standard offer.

p. Requires the PSB, starting in 2011 and every two years afterward, to report on the standard offer program.

Sec. 4a changes existing law to make utility renewable energy pricing programs voluntary instead of mandatory.

Sec. 5 amends the Clean Energy Development Fund (CEDF) statute to allow the fund to finance thermal energy and geothermal projects and to direct that the funds appropriated to Vermont by the federal stimulus legislation under the "state energy program" (approximately $21 million) be deposited into the CEDF. Sec. 5 of this act was superseded and replaced by Sec. 93 of Act No. 54, which in turn was further amended by Sec. 4 of Act No. 2 and Sec. 13 of Act No. 3 of the June 2009 special session.

Sec. 6 adds the following concerning rate incentives for regulated electric utilities: they may recover prudently incurred permitting costs for renewable energy projects, whether or not the permit is granted; and the PSB may grant such utilities a reasonable incentive on their capital investment in renewable energy projects. The section requires that the projects be sited in Vermont.

Sec. 7 allows a wind developer, when applying for a permit from the PSB, to provide the maximum dimensions and decibel levels for its proposed wind turbines and rotors rather than specifying the exact make and model.

Sec. 8 concerns the agency of natural resources' current policy against siting large-scale wind projects on state lands. The section:

a. States that it is reasonable to site wind turbines on state lands, including turbines of commercial scale.

b. Recognizes that wind turbine siting on state lands should not conflict with legal restrictions on the use of those lands and should be environmentally responsible.

c. Provides that the agency's policy does not bar the agency from considering commercial-scale wind development.

d. Requires the agency to revisit its existing policy if it receives significant new information.

e. Requires the agency to report to the general assembly on whether it revisits or revises its policy, whether it receives any proposals for wind turbine siting on its lands, and what its response was to any such proposals.

Secs. 9, 9a through 9e, and 10 concern solar energy tax credits. They clarify, for investments made on or after January 1, 2009, that the tax credit for individuals must be attributable to Vermont property and that a taxpayer may either use a grant from the CEDF or the tax credit, but not both. They also provide that, for investments on or after October 1, 2009, the tax credit will apply only to that portion of the investment not funded by a grant or similar funding. They further provide that unused investment tax credits and solar energy investment credits may be carried forward no more than five years. They repeal the state tax credit effective January 1, 2011, but allow taxpayers to carry forward for up to five years the unused portion of credits claimed prior to that date. They require the CEDF to make the general fund whole for the cost of the tax credits. Secs. 11 through 13 amend the residential and commercial building energy standards statutes to require that, by January 1, 2011, the department of public service (DPS) revise the standards to conform to the federal American Recovery and Reinvestment Act (ARRA). These statutory revisions ensure compliance with that act so that Vermont can receive stimulus funds.

In accordance with ARRA, Sec. 11 of the bill requires that new residential construction comply with the 2009 edition of the International Energy Conservation Code. Similarly, Sec. 12 of the bill requires that new commercial construction comply with the so-called "ASHRAE" 90.1-2007 code or the 2009 edition of the International Energy Conservation Code, whichever provides the greatest level of energy savings. These will become effective on or before January 1, 2011, when the DPS is to complete rulemaking to change the existing standards.

ARRA requires that states create an energy code compliance plan that will ensure 90 percent compliance by 2017 and establish active training and enforcement programs for energy standards and a system for measuring the rate of compliance. Sec. 13 requires the DPS to produce that plan by September 1, 2011, after seeking comments and recommendations from potentially affected parties and persons with expertise. DPS also is required to set up the training and enforcement programs and the compliance measurement system by June 30, 2012.

Sec. 14 enacts a three-year pilot project for a self-managed energy efficiency program for very large transmission and industrial ratepayers. Among other things, the section:

a. Requires DPS to propose the program to the PSB, which would adopt it by December 31, 2009 for effect January 1, 2010.

b. Exempts approved participants from the statewide energy efficiency charge.

c. Provides that eligible participants are those who had an energy efficiency charge bill of at least $1.5 million in 2008.

d. Requires an approved participant to commit to a three-year investment of an annual average of $1 million in electric or other energy efficiency improvements.

e. Requires verification of energy savings claims in a manner consistent with the procedures established for the energy efficiency utility.

f. Includes requirements for annual accounting by the participant and reporting by the PSB to the general assembly.

g. Requires the PSB to terminate the participant's eligibility if it found the participant was not living up to its commitment.

h. Requires the participant to pay the difference between its investment and what it would have paid under the energy efficiency charge if either one of the following occurs: (1) the PSB determines, during the course of the three-year pilot, that the participant is not meeting its commitment; or (2) at the end of the third year, the participant has not met its commitment.

Sec. 14a amends an existing mandate for the PSB to establish criteria and procedures for an energy savings account for customers who pay an overall annual energy efficiency charge of $5,000. Under existing law, a percentage of the customer's energy efficiency charge would be applied to the customer's own energy efficiency. The section requires that the PSB establish this program by December 31, 2009.

Secs. 15 and 15 create a Vermont Village Green Renewable Pilot Program to consist of two district heating projects using renewable fuels to serve end users in designated downtowns or growth centers in Montpelier and Randolph. Other municipalities may participate in the pilot if either or both of those towns decline. Projects may but do not have to include district power. If wood is used as fuel, the project shall meet minimum fuel efficiency requirements. On certification by the DPS, end users connecting to the project are eligible to receive funds from the CEDF to be applied to the cost of connecting to the project, and the CEDF is required to provide at least $100,000 in incentives for this purpose, Also, if district power is included, special electric rates can be set by the PSB. Reporting requirements by the host community and DPS are included.

Secs. 15b through 15d forbid municipalities from adopting a bylaw, ordinance, resolution, or other enactment that prohibits or has the effect of prohibiting the installation of solar collectors, clotheslines, or other energy devices based on renewable resources. They also adopt a similar prohibition applicable to deed restrictions, covenants, or similar binding agreements. However, installation of these energy devices may be prohibited on patio railings in condominiums, cooperatives, or apartments.

Secs. 15e through 15k authorize municipalities to create clean energy assessment districts to finance eligible renewable energy and energy efficiency projects undertaken by the owners of real property within the boundaries of the municipality. The creation of such a district would be subject to voter approval. Upon approval by the voters, a municipality would be able to incur indebtedness for or otherwise finance eligible projects. Only property owners who have entered into written agreements with the municipality will be subject to a special assessment. The sections require the participating municipality to follow underwriting criteria and establish other qualifying criteria to assure that property owners will be able to meet assessment payment obligations. The property owners shall repay the assessment no later than the end of the expected lifetime

of the project. In the event a property subject to the assessment is transferred, all past due balances shall be paid and the requirement for future payments shall constitute a lien on the property. Before a written agreement is entered into, an analysis of project costs, energy savings, and estimated carbon impacts must be performed or reviewed and approved by the energy efficiency utility. Participating owners are responsible for the costs of operating the districts. A municipality may establish a reserve fund, funded by participating property owners, for use in the event of foreclosure on an assessed property.

Sec. 16 states that the act takes effect from passage with exceptions concerning the solar energy tax credit provisions that are reflected in the discussion above of Secs. 9, 9a through 9e, and 10.

Date Signed by the Governor: Governor did not sign the bill and allowed the bill to become law without his signature

Effective Date: On passage (May 27, 2009, the date on which the governor allowed the bill to become law without his signature)

10. Act No. 159, H.781

Renewable energy

This act contains various provisions on renewable energy.

Sec. 1 allows net metering for renewable energy plants of 2.2 megawatts (MW) or less installed by the National Guard or state military department.

Secs. 2 and 3 address existing farm methane plants that support renewable pricing programs.

Sec. 2 contains findings that cite unique benefits received from these plants. The findings also state that the plants are experiencing serious losses because of a drop in the market price for power while new agricultural methane projects are receiving a standard offer at a substantially higher price.

Sec. 3 amends existing law to require the public service board to make available a standard offer for the existing farm methane plants that support renewable pricing programs. The price of the required standard offer must be the same as for new farm methane plants.

Sec. 4 clarifies existing law to state that a retail utility that has at least 25 percent of its supply from Sustainably Priced Energy Enterprise Development (SPEED) resources is exempt from the allocation of standard offer costs.

Secs. 5 through 7 address simplified procedures for permitting and interconnection to the utility grid of small renewable energy plants. Under prior law, the public service board created simplified procedures for permit review and interconnection for net metering systems of 150 Kw or less. The act requires the board to use the same procedures for all renewable energy plants of 150 kW or less and states that this requirement supersedes any contrary provisions of the board's rules. For renewable plants that range from 150 kW through 2.2 MW, the board must simplify application and interconnection procedures by rule or order, issuing an initial order with simplified procedures by September 1, 2010.

Sec. 8 amends existing law to allow a plant owner in the standard offer program to transfer to a retail electric utility all rights associated with a standard offer contract that has been offered to the plant without affecting the plant's status under the program.

Secs. 9 through 11 amend existing law regarding business solar energy tax credits. They extend existing prospective repeals of these credits from January 1, 2011, to January 1, 2012. They cap the credits at $9.4 million total, with eligibility to be certified by the clean energy development board (CEDB). Two sets of systems can receive the credits. First, solar standard offer systems can receive the credits if by July 15, 2010, they file a complete application with the public service board and provide data to the CEDB and by September 1, 2011, they complete construction. Second, solar thermal systems that do not require public service board approval and net metering systems can qualify if they are 150 kW or less, provide data to the CEDB by December 15, 2010, and make the investments by December 31, 2010. The CEDB is required to set aside part of the $9.4 million in available credits for the second set of systems.

Sec. 12 of the bill is deleted.

Sec. 13 removes language from the existing definition of renewable energy stating that hydroelectric generation is renewable only if it comes from a facility of 200 MW or less and inserts language clarifying that if a purchase of electricity is from a system of resources that includes both renewable and nonrenewable technologies, only that portion of the purchase that is actually from renewable technologies qualifies as "renewable." Under Sec. 19 of the bill, this section goes into effect on July 1, 2012.

Sec. 13a requires the public service board by October 1, 2011, to submit to the legislative committees of jurisdiction a report on the potential development of a renewable portfolio standard (RPS) and the potential adoption of, instead of an RPS, revisions to the SPEED program. It contains findings that explain existing law and facts related to an RPS and the SPEED program and how removing the capacity limit on hydroelectric generation might affect an RPS or the statutory SPEED goals. The report is to address the overall issues of whether or not to adopt an RPS or, in lieu of an RPS, revised SPEED goals and requirements and is to evaluate a range of associated questions, including the impact of declaring large-capacity resources to be renewable and the manner in which Vermont would require third-party certification that a resource is renewable or has low environmental impact. The board must submit its recommendations and a potential RPS and potential SPEED revisions for consideration.

Sec. 13b requires the public service board to determine the disposition, allocation, and use of revenues received by an electric utility that are from the sale of environmental attributes related to renewable energy from a system greater than 200 MW and that are received by the utility as part of an agreement under which those revenues or the rights to those attributes are transferred to the utility. The allowed uses must promote state energy policy and renewable energy, greenhouse gas reduction, and building efficiency goals as stated in existing statute. The allowed uses include development of in-state renewables, energy efficiency, rate reduction, and alternative transportation.

Sec. 14 amends Vermont's existing efficiency standard for medium voltage dry-type distribution transformers to be the same as the federal standard.

Sec. 15 amends Act 54 of this biennium to extend from January 15, 2010, to

February 1, 2011, the deadline for the department of environmental conservation to amend its stormwater rules to include alternative guidance for renewable energy projects located at high elevations.

Secs. 16 through 18 transfer jurisdiction over appeals of agency of natural resources permits from the environmental court to the public service board if the appeals concern renewable energy plants for which the board must issue a certificate of public good under 30 V.S.A. § 248 and provide for the potential consolidation of those appeals with the board's section 248 process. In the appeals, the board must use the same substantive and participation standards as the environmental court did and must apply environmental court precedent. The transfer of appellate jurisdiction would not apply to hydroelectric facilities licensed by the Federal Energy Regulatory Commission.

Sec. 18a amends existing law to authorize the Clean Energy Development Fund to support natural gas vehicles and associated fueling infrastructure.

Sec. 18b amends existing law concerning residential building energy standards to conform the definition of "residential construction" to the International Energy Conservation Code of 2009, as required by the federal American Recovery and Reinvestment Act of 2009.

Sec. 18c requires the governor, relevant state agencies, and the efficiency utility to act promptly to secure the greatest possible benefit for Vermont from the pending federal Home Energy Retrofit Act of 2010 and to use the efficiency utility for implementation of that act.

Sec. 18d amends existing law to exempt from electric licensing requirements the installation of solar electric modules and racking on complex structures to the point of connection to field-fabricated wiring and erection of net-metered wind turbines.
Under Sec. 19 (effective date), the act takes effect on passage, except that Sec. 13 takes effect on July 1, 2012.

Date Signed by the Governor: June 4, 2010

Effective Date: Sec. 13 – July 1, 2012; all other sections – on passage (June 4, 2010, the date on which the governor signed the bill)

11. Act No. 47, H.56

Energy; public service; renewable energy; tax; municipalities; real property; commerce and trade; consumer fraud; natural resources; air quality
The Vermont Energy Act of 2011

This act contains various statutes and session law related to energy. Among other things, the act:

Changes the net metering statute, including increasing the maximum capacity of individual systems and the cumulative capacity of all such systems on the electric grid, mandating a registration process for solar net metering systems of five kilowatts or less, and requiring each utility to provide an additional credit for solar net metering systems (Secs. 1 and 2.)

Makes permanent a pilot project related to a self-managed energy efficiency program (Secs. 3 and 4.)

Revises the circumstances under which a regulated utility's purchase of electricity from outside the state automatically requires review by the public service board (Sec. 5.)

Exempts in-state transmission projects by electric cooperatives from the requirement for member approval if the projects are solely for reliability purposes (Sec. 5.)

Makes changes to the Sustainably Priced Energy Enterprise Development (SPEED) program, including making unused capacity from the standard offer component of that program available to existing small hydroelectric projects (Secs. 6–10.)

Establishes a baseload renewable power portfolio requirement to be met by using an existing woody biomass plant (Sec. 11.)

Amends existing law under which municipalities may create special assessment districts to fund energy efficiency and renewable energy improvements, including changing the name of these districts to property-assessed clean energy (PACE), limiting PACE to residential properties, making PACE liens subordinate to first mortgages, requiring that on foreclosure PACE payments are made current and that the PACE lien survives foreclosure, and establishing two tiers of reserve funding to provide security for PACE assessments (Secs. 18a–18j.)

Requires the content of heating oil, over time, to have less sulfur and more biodiesel, with the biodiesel requirements coming into effect when surrounding states have adopted substantially similar or more stringent requirements (Sec. 19.)

Establishes protections for propane consumers (Sec. 19a.)

Requires the department of public service (DPS) to report to the general assembly by January 15, 2012 on whether it is in the public interest for regulated utilities to allocate credit and debit card service fees across all ratepayers rather than charging an additional fee to each ratepayer seeking to pay by credit or debit card (Sec. 20.)

Directs that thermal energy efficiency programs support use of woody biomass heating systems (Secs. 20a–20c.)

Creates a working group on building energy disclosure to study whether and how to require disclosure of the energy efficiency of commercial and residential buildings to make such information available in the marketplace for real property, and to submit to the general assembly by December 15, 2011 a report with recommended legislation (Sec. 20d.)

Specifies particular issues to be considered by the DPS in its next update of the comprehensive energy and 20-year electric energy plans (Sec. 20e.)

Requires each regulated electric utility to have a rate schedule that provides an option under which efficient streetlights (including light emitting diodes or LED lights) are installed on company-owned fixtures, and to have a separate option under which customers may own street lights and install efficient lights (Secs. 20f–20g.)

Makes changes related to the clean energy development fund (CEDF) and the solar energy tax credits, including allowing a taxpayer an option to receive a grant for one-half the value of those credits in lieu of taking their full value over five years, excluding such a grant from income for state tax purposes, enabling the CEDF to issue such a grant, and returning the CEDF to the supervision of the DPS (Secs. 20h–20m.)

Amends existing statutes and session law regarding the ability of the DPS, the public service board, and the joint fiscal committee to allocate costs(Secs. 20n–20s.)

Modifies statutory provisions that govern when revisions to building energy standards will become effective (Secs. 20t–20u.)

Multiple effective dates, beginning May 25, 2011

12. Act No. 125, H.475

Energy; public service; net metering; conservation and land development
An act relating to net metering and the definitions of capacity

This act primarily consists of technical modifications to an existing statute that authorizes customers who self-generate electricity using renewable energy to "net meter" or count that generation against the electricity supplied to them by their electric company. The act specifically raises from five to 10 kilowatts an existing individual capacity cap for a registration process for solar net metering systems and instructs the public service board to modify its solar net metering forms and procedures to reflect this new cap. The act also clarifies how credits are calculated for net metering customers who are on "demand" or "time-of-use" rate schedules. The act further requires an electric company to base the calculation of additional credits for solar net metering systems on the company's general residential rate schedule. The act directs the department of public service to submit a report to the general assembly by January 15, 2013 that evaluates and makes recommendations regarding Vermont's net metering statutes, rules, and procedures. The act also clarifies how capacity for solar energy plants is measured.

Multiple effective dates, beginning May 11, 2012

13. Act No. 170, S.214

Energy; public service; conservation and land development
The Vermont Energy Act of 2012

This act makes the following changes to Vermont laws that affect energy:

Renewable energy goals. The act amends the state's renewable energy goals to encourage distributed renewable generation and to promote renewable energy plants that are diverse in size and technology and that use natural resources efficiently. The act requires the integrated resource plans of Vermont's electric utilities to be consistent with these goals.

SPEED program; generally. The act revises the goals of the Sustainably Priced Energy Enterprise Development (SPEED) program. It clarifies an existing SPEED goal that 20 percent of total retail sales statewide in 2017 be from new renewable energy, and it adds a total renewables target for each electric utility of 55 percent starting in 2017 rising to 75 percent by 2032. Utilities are required to manage their supply portfolios to be reasonably consistent with the total renewables targets. Consistency with the targets is to be reviewed as part of cases before the public service board (PSB).

SPEED; standard offer program. This act codifies the existing standard offer program in its own separate statutory section, clarifies eligibility for the program, and expands the program from a "cumulative capacity" ceiling of 50 megawatts (MW) to 127.5 MW in annual increments over the next 10 years. The PSB is required to reduce the

annual increments to account for "greenhouse gas reduction credits" created by an eligible ratepayer (see below). The PSB is also authorized to allocate regulatory costs to both utilities and renewable energy project developers.

The act exempts three types of plants from the cumulative capacity ceiling: farm methane plants, new standard offer plants that have substantial benefits to the operation and management of the electric grid, and existing in-state hydroelectric plants that are five MW or less and that meet other eligibility requirements. The PSB is required to make a standard offer contract of 10 or 20 years available to these existing in-state hydroelectric plants, at a price of no more than $.08 per kilowatt hour adjusted for inflation.

Starting in 2013, for new standard offer plants, the PSB is instructed to set prices annually for each category of renewable energy using either a "market-based procurement" or "avoided cost" pricing mechanism. The act also tightens requirements for participation in the standard offer program in order to discourage developers from filling program capacity with projects unlikely to be built. If a standard offer project does not meet the requirements of the program in a timely manner, its contract terminates, and any capacity within the program is reallocated to other eligible plants. Further, the PSB is required to submit a report and action plan on any factors to date that have, relative to the standard offer program, caused delays in placing plants in service or increased the costs to ratepayers.

Biennial report on renewable energy programs. This act requires the PSB to submit to the general assembly biennial reports providing detailed information and analyses on the SPEED and standard offer programs. The required report also must compare Vermont's electric retail rates to inflation rates and to rates in other New England states. If Vermont rates are increasing at a comparatively faster pace, the report must assess the contributions to the rate increases from various sources such as the cost of energy and capacity, transmission and distribution infrastructure, and the standard offer program.

Further study and report on mechanisms to promote renewable energy. This act requires the PSB, in consultation with the department of public service (DPS), to submit a further study and report on a potential renewable portfolio standard for the state and other potential mechanisms to encourage renewable energy.

Greenhouse gas reduction credits. This act allows greenhouse gas reduction credits generated by an eligible ratepayer to adjust the cumulative capacity of the standard offer program and establishes a methodology for calculating such credits. Eligible reductions are reductions in emissions from the eligible ratepayer's manufacturing process that are not energy-related, so long as the reductions result from specific projects, are otherwise required by law, are quantifiable, and are verified by an independent third party.

Electricity providers are required to pass on savings realized through these credits proportionally to the eligible ratepayers generating the credits.

New gas and electric purchases; criteria for approval. This act amends the criteria applied by the PSB under 30 V.S.A. § 248 to determine whether to approve new electric generation and transmission and natural gas transmission facilities, purchases, and investments. It clarifies that the determination of whether a facility, purchase, or investment is needed is based on an assessment of environmental and economic costs

performed in the same manner as for utility integrated resource plans. For the siting of an in-state facility, the act requires a determination that the facility will not have an undue adverse effect on the use of natural resources, and that due consideration is given to greenhouse gas impacts. For an in-state generation facility using woody biomass, it requires compliance with applicable air pollution control requirements, achievement of a reasonable design system efficiency for the type and design of facility, and compliance with fuel harvesting guidelines and procurement standards that are consistent with those developed by the agency of natural resources (ANR) (see below).

Total energy report. This act requires the DPS to report on proposed policies and funding mechanisms that would support achieving the DPS's recommendation that, by 2050, 90 percent of energy consumed in Vermont be renewable energy. The report is to address Vermont's "total energy" consumption, including electricity, thermal energy, and transportation. The report also is to consider development of a science-based public information campaign on the causes and risks of climate change.

Greenhouse gas accounting. ANR is required to adopt rules for life cycle accounting of greenhouse gas emissions, to be used across state and local government.

Smart metering. This act establishes that utilities may, on prior written notice, install wireless smart meters for their customers. Customers may opt out of the installation at no charge. Further, DPS and the departments of health must submit a joint report on wireless smart meters and their potential health effects.

Biomass heating systems. This act establishes that high-efficiency biomass heating systems, whether they use wood or other biomass, are qualifying systems for the thermal efficiency services delivered by Efficiency Vermont. Under prior law, only woody biomass heating systems qualified.

Harvesting and procurement standards. This act directs ANR to develop wood harvesting guidelines to be used for wood energy purposes and other harvesting. These guidelines would be voluntary for private landowners, except that they would be incorporated into forest management plans and practices for lands in the use value appraisal program. The commissioner of forests, parks and recreation also is required to ensure that wood product harvests on state lands are consistent with the purpose of the guidelines. The act further directs ANR to develop procurement standards to be used in the state procurement of wood products, including biomass energy. These procurement standards would be available to other institutions on a voluntary basis. The act directs ANR to seek implementation of regional harvesting guidelines and procurement standards.

Resource mapping. This act requires ANR to complete resource mapping based on the geographic information system to identify natural resources throughout the state that may be relevant to energy projects and to consider these maps when providing evidence or making recommendations to the PSB and to district commissions.

Biomass energy demonstration project. This act authorizes a biomass energy demonstration project to be implemented in Chittenden County. The demonstration project will be subject to forest harvesting guidelines and procurement standards and must provide pellets at a reduced cost to low income households.

Solar energy devices; exemption; flat roofs. This act exempts solar energy devices installed on flat roofs from regulation under municipal land use bylaws.

Multiple effective dates, beginning May 18, 2012

14. Act No. 38, S.30

Energy; land use; conservation and development; natural resources; public service; electric generation

This act provides that, during adjournment between the 2013 and 2014 sessions, the House and Senate Committees on Natural Resources and Energy (the Committees) jointly shall review the report and recommendations of the Governor's Energy Generation Siting Policy Commission created by Executive Order No. 10-12 dated October 2, 2012. The Committees jointly may consider any issue related to electric generation plants and may recommend legislation to the General Assembly concerning electric generation plants. During adjournment, the Committees may meet for the purposes of the act no more than six times.

Effective Date: May 20, 2013

15. Act No. 87, H.395

Conservation and development; Vermont Economic Development Authority; Vermont Clean Energy Loan Fund

This act creates 10 V.S.A. chapter 12, subchapter 13 and several additional provisions relating to financing and investments in clean energy improvements through the Vermont Economic Development Authority (VEDA), the Office of the Vermont Treasurer, and others.

Sec. 1. Establishes the Vermont Sustainable Energy Loan Fund (the Fund), the purpose of which is to authorize VEDA to make loans and other forms of financing that stimulate and encourage development and deployment of sustainable energy projects in Vermont. "Sustainable energy" includes energy efficiency, renewable energy, and technologies that enhance or support the development and implementation of renewable energy or energy efficiency, or both. Subsection (d) requires VEDA to maintain records on the projected reductions in greenhouse gas emissions and projected energy savings achieved through program investments.

Sec. 2. Authorizes VEDA to provide loan guarantees under the Energy Efficiency Loan Guarantee Program through an initial capital contribution of $500,000.00 and provides that other funding sources may contribute to the Program as funds are made available.

Sec. 3. Removes the cap on the amount of money that VEDA is authorized to contribute to the capital of two existing nonprofits created under VEDA by statute—the Small Business Development Corporation and the Vermont 504 Corporation.

Sec. 4. 10 V.S.A. § 234 authorizes VEDA to loan money to the Sustainable Energy Fund at interest rates and terms set by VEDA.

Sec. 5. Adds the Fund to the other VEDA programs described in the Sustainable Jobs Strategy.

Sec. 6. Increases the number of VEDA board members from 12 to 15, adding the Commissioner of Public Service, the Commissioner of Forests, Parks and Recreation, and one additional Vermont resident appointed by the Governor.

Sec. 7. Increases the amount of the State's "moral obligation authority" VEDA is allowed to pledge for its debt service to $130,000,000.00 (previously $115,000,000.00).

Sec. 8. Authorizes the State Treasurer to establish a short-term credit facility for the benefit of VEDA of up to $10,000,000.00 to finance commercial sustainable energy projects through the Fund.

Sec. 8a. Authorizes the State Treasurer, working with participating entities, to establish a credit facility of up to $6,500,000.00 to finance residential energy efficiency improvements that comply with the requirements of this section.

Sec. 8b. Designates several existing programs to be known collectively as the "Vermont Clean Energy Jobs Initiative."

Effective Date: June 17, 2013

16. Act No. 89, H.520

Energy; public service; efficient use of heating and other fuels; weatherization; climate change; greenhouse gases

This act concerns the efficient use of energy to reduce energy costs and greenhouse gas emissions. It primarily focuses on thermal energy efficiency, such as space or water heating, but also includes provisions that relate to air pollution and to renewable energy.

Thermal efficiency delivery under Public Service Board oversight. The act makes revisions to the system of delivering thermal energy efficiency through entities appointed by the Public Service Board, including provisions that direct the Board to have these entities establish a statewide clearinghouse that can serve as a single portal for customer access, and to ensure the monitoring of progress toward statutory building efficiency goals.

Building energy standards. The act clarifies the applicability of Vermont's residential and commercial building energy standards to mixed-use buildings and includes various amendments to promote compliance with those standards, such as using existing State and local permit processes to encourage compliance. The act also amends the residential buildings energy standards (RBES) statute to authorize the Department of Public Service to adopt a "stretch" code for residential buildings to achieve greater energy savings than the RBES. Once a stretch code is adopted, residential buildings will gain a presumption of compliance with the energy conservation criterion of 10 V.S.A. chapter 151 (Act 250) if they demonstrate compliance with the stretch code. Municipalities would have the option to adopt the stretch code as part of their land use bylaws.

Voluntary building energy disclosure. The act directs the Department of Public Service to convene a working group to develop a consistent format for energy rating tools that a building owner may use to disclose the building's energy performance to a prospective purchaser or that a purchaser may use to compare the energy performance of

multiple buildings. Reports on this effort are due as follows: in 2013, on development of a residential energy rating tool; in 2014, on development of a commercial energy rating tool; and in 2016, on efforts made to disseminate the tools for public use and an assessment of their use by the public.

Home heating and weatherization assistance. The act amends the statutes concerning the Home Heating Fuel Assistance and Home Weatherization Assistance Programs to direct the Weatherization Assistance Program to give priority to Home Heating Fuel Assistance recipients who use the most Btus to heat a square foot of space. The act also directs the Weatherization Assistance Program, after giving priority to those recipients of Home Heating Fuel Assistance, to give the greatest weight in prioritizing weatherization funds to those buildings and units that require the most Btus to heat a square foot of space. The act further increases the allowed amount of weatherization assistance per unit and raises weatherization assistance eligibility from 60 to 80 percent of median income.

Air pollution. The act amends existing law to make clear that the Agency of Natural Resources (ANR) is enabled to implement a revised carbon emissions cap recently agreed upon by the states that are party to the Regional Greenhouse Gas Initiative. It repeals a statute that prohibited ANR from adopting rules that require the delivery or sales of electric vehicles that derive all of their power from batteries. It also requires ANR to make a written determination on whether Vermont should adopt emission standards for pellet stoves eligible for State rebates and incentives that are more stringent than the standards under the federal Clean Air Act.

Renewable energy. The act clarifies the definition of "plant capacity" in the renewable energy chapter of Title 30 as it pertains to solar plants. It also amends the statutes pertaining to the Clean Energy Development Fund to make supporting the smallâ€'scale renewable energy incentive program discretionary rather than mandatory.

Multiple effective dates, beginning June 17, 2013

17. Act No. 99, H.702

Public service; energy; conservation and development; net metering

This act makes two sets of changes to the statutes governing net metering systems.

First, for effect in 2014, this act amends the existing statute to address the following topics, among others: the cumulative output capacity of all net metering systems, the capacity of individual solar net metering systems, the required additional incentive for those solar systems, the ownership of renewable energy credits associated with net metering systems, the creation of a pilot project under which an electric cooperative would install net metering systems, and the ability of an electric company whose power supply portfolio is 90 percent renewable to implement an alternative net metering program.

Second, for effect in 2017, the act would repeal the existing net metering statute and replace it with a statute that provides policy direction to the Public Service Board for a revised net metering program that would be governed by Board rules. The Board would develop these rules through a process to occur before 2017. This process would

include a report by the Department of Public Service (DPS) to the Board followed by workshop and rulemaking proceedings on a revised program and a report by the Board to the General Assembly in 2016. The act also provides direction to the DPS in its advocacy concerning the region's electric system and requires the DPS to submit a report on whether energy contracts in the so-called "SPEED" program should include ownership of the energy's environmental attributes.

Multiple effective dates, beginning on April 1, 2014

18. Act No. 56, H. 40

Establishing a Renewable Energy Standard

This act creates a Renewable Energy Standard (RES) applicable to the supply portfolios of Vermont electric utilities with requirements that start in 2017. It also repeals the Sustainably Priced Energy Enterprise Development (SPEED) Program, except for the standard offer component of that program.

The RES establishes three categories:

- It converts existing total renewables targets into a total renewable energy requirement that rises from 55 percent of a utility's sales in 2017 to 75 percent in2032. A utility may meet this requirement by owning renewable energy or renewable energy credits (RECs) from any plant, as long as the plant's energy is capable of delivery to New England.
- It creates a distributed renewable generation category that rises from one percent of a utility's sales in 2017 to 10 percent in 2032. A utility may meet this category through renewable energy or RECs from plants that come into service after June 30, 2015 and are five MW or less and directly connected to the Vermont utility grid or are net metering systems for which the utility retires the RECs. This category counts toward the total renewable energy category.
- It creates a separate energy transformation category that rises from two percent in 2017 to 12 percent in 2032, except that small municipal utilities will not have to meet this category until 2019. A utility may meet this category through additional distributed renewable generation or "energy transformation projects."

Energy transformation projects must have commenced on or after January 1, 2015 and deliver energy goods or services other than electric generation and must result in a net reduction in fossil fuel consumption by a utility's customers and the attributable greenhouse gases. The act states that energy transformation projects may include home weatherization or other thermal energy efficiency measures, air source or geothermal heat pumps, and other measures.

The act also includes provisions relating to the ownership and retirement of RECs for net metering systems and to the adoption of setbacks and screening requirements for solar electric generation plants.

Multiple effective dates, beginning on June 11, 2015.