

RPS LEGISLATION – PSB Staff DRAFT

Statement of purpose: This bill seeks to establish a standard whereby retail utility companies in Vermont will maintain their use of existing renewable electric generation resources, increase their use of new renewable resources, and support the development of renewable energy and energy efficiency industries and infrastructure in Vermont.

AN ACT RELATING TO RENEWABLE ENERGY PORTFOLIO STANDARD

It is hereby enacted by the General Assembly of the State of Vermont:

§ 0001. Findings and Purpose

(a) The general assembly finds that:

- (1) As the State of Vermont prepares to make major decisions regarding new power sources, Vermont electricity providers need to develop robust strategies that are effective under many possible future events, and to continue to recognize the value of environmental quality and economic sustainability.
- (2) The commitments of electricity providers for sources representing over 60% of Vermont's energy will be expiring in the first half of the next decade. Further, it is likely that plans to replace that power will begin within the next few years. The establishment of a clear policy articulating Vermont's expectations regarding renewable energy for that significant activity will help ensure that the outcome is one that is satisfactory to all Vermonters.
- (3) Long-term price stability and increased system reliability are of value to Vermonters, and will enhance the long-term competitiveness of Vermont's businesses and economy.
- (4) Atmospheric deposition resulting from human activity including the burning of various fossil fuels for electricity generation contributes to environmental and health-related problems. One third of the air pollution in the United States results from electricity generation.
- (5) The burning of fossil fuel to generate electricity results in emissions to the environment of sulfur dioxide, oxides of nitrogen, particulate matter, volatile organic compounds, carbon monoxide, carbon dioxide, and air toxics, including metals such as mercury, lead, arsenic, cadmium and chromium.
- (6) The National Academy of Sciences recently reported to the president of the United States that greenhouse gases “are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise,” that natural variability has contributed to this, but that humans must accept some responsibility for that warming.
- (7) Shifting to energy sources other than fossil fuels will greatly reduce the negative environmental and health effects associated with air pollution. Vermont now gets approximately 15% of its total electrical energy, as defined in this chapter, from renewable energy sources, principally from small to moderate sized hydro-electric units, biomass combustion, and wind generators.

(8) Natural gas combined-cycle and combustion turbine power plants account for approximately 96% of the total generating capacity added in the U.S. between 1999 and 2003.

(9) Natural gas-fired technology is expected to account for 80% of new generating capacity projected to come on line through 2025, increasing the nation's share of natural gas-fired generation from 17% in 2001 to 29% by 2025.

(10) Since 1990, natural gas prices have increased and also undergone significant fluctuations. With increased competition for natural gas supplies, it is likely that natural gas prices will continue to be as volatile or more so than they have been in the past. Increased price levels, near-record-high volatility, and increased reliance upon natural gas-fired generation, mean an unprecedented amount of electricity generation will become subject to natural gas fuel price risk.

(11) The cost of natural gas can account for more than half the total cost of a new combined cycle natural gas turbine, and more than 90% of its operating costs.

(12) Since natural gas-fired units are often the marginal units whose costs are used to set the market-clearing price for all generators in New England's wholesale market, natural gas price and volatility will have direct impacts on the costs and the volatility of wholesale electricity.

(13) With the amount of new natural gas-fired units expected to nearly double in the next twelve years, and the price risks associated with natural gas-fired generation, the impact of natural gas price volatility on the wholesale electric market can be expected to increase.

(14) Nuclear power currently provides a significant share of the power used in New England, and exercises a dominant role in Vermont's current resource mix. While nuclear power contributes to the current diversity in New England's mix of electricity resources, new nuclear power sources are unlikely to further provide an alternative to new natural gas-fired generation.

(15) Renewable energy resources are by their nature largely immune to the fuel price risk associated with fossil fuels.

(16) In an environment of increasingly volatile natural gas prices, renewable energy resources have the potential to provide real economic benefit in the form of price stability and system reliability.

(17) By participating in the marketplace administered by the Chicago Climate Exchange and designed to trade greenhouse gas emissions, north American corporations, municipalities, and other institutions recognize the need to prepare for possible future climate change-related emissions controls of some kind. In view of the possibility of the emergence of such emissions controls, renewable resources possess risk-mitigation value.

(18) The State of New York has recently called on other northeastern states to create a regional market in which power plants can buy and sell carbon dioxide credits in an effort to reduce emissions across the region.

(19) Fifteen states have adopted a renewables portfolio standard or goals, and five states are currently considering whether to do so.

§ 0002. Renewable energy goals

(a) The renewable portfolio standard authorized under this chapter shall be designed and implemented in recognition of the following goals:

- (1) As Vermont utilities manage their resource portfolios on a going-forward basis, they should demonstrate that their choices of new non-renewable resources are of greater value than comparable and available efficiency or renewable resources.
- (2) Vermont should support the development of renewable energy and energy efficiency industries and infrastructure, while sustaining existing renewable energy infrastructure.
- (3) To the extent practicable, Vermont retail electricity providers should increase their use of renewable energy in order to capture the benefits of renewable energy generation for Vermont ratepayers and citizens.
- (4) To the extent practicable, in the context of acquiring renewable resources or any other resources serving Vermont's energy needs, Vermont retail electricity providers should seek to maintain or reduce their electricity rates and to lessen the price risk and volatility for future ratepayers.

§ 0003. Renewables Portfolio Standard

(a) In order for Vermont utilities to achieve the goals established in section 0002, no company shall sell or otherwise provide or offer to sell or provide electricity in the state of Vermont without ownership of sufficient capacity produced by renewable resources as described in this chapter, or sufficient tradeable renewable energy credits that reflect the required energy as provided for by the standard for renewable energy portfolios to be established pursuant to this section.

(b) The standard shall include a two-part portfolio requirement that shall be applicable to all providers of electricity to retail consumers in this state.

(i) The first part of the standard requires that each retail electricity provider in Vermont, on a going-forward basis, maintain the same amount of renewable energy, as defined in this chapter, contained in its supply portfolio as measured in calendar year 2003. No electricity provider shall be required to maintain an amount of existing renewable resources exceeding 25% of its supply portfolio as measured in calendar year 2003.

(ii) The second part of the standard requires each retail electricity provider in Vermont to meet 100% of its new growth from January 1, 2004 to January 1, 2013, up to a total of 10 percent of retail electric sales, through the use of electricity generated by new renewable energy technologies, unless the electricity provider demonstrates in its integrated resource plan review under 30 V.S.A. section 218c, and the Board determines that the electricity provider's acquisition of efficiency or other resources is a strategy that results in a more robust and appropriate portfolio than would have been the case if the electricity provider had acquired new renewable resources.

(c) The public service board shall provide, by order or rule, the regulations and procedures that are necessary to allow the board and the department of public service to further implement and supervise the implementation and maintenance of a renewables portfolio standard.

§ 0004. Tradeable Credits

(a) The board may establish or adopt a system of tradeable credits for renewable resources that may be earned by electric generation qualifying for the two parts of the renewables portfolio standard.

(b) The board shall ensure that all electricity provider and provider affiliate disclosures and representations made with regard to a provider's portfolio are accurate, and reasonably supported by objective data. Further, the board shall ensure that providers disclose the types of generation used, whether the energy is Vermont-based or not, and clearly distinguish between energy or tradeable energy credits provided from renewable and nonrenewable sources, and existing and new sources.

0005. Definitions

For purposes of this chapter:

(a)(i) "Renewable energy" means energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate.

(ii) "New renewable energy" means renewable energy produced by a generating resource built after December 31, 2003.

(iii) 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 shall be considered renewable energy resources, but no form of solid waste, other than agricultural or silvicultural waste, shall be considered renewable.

(iv) No form of nuclear fuel shall be considered renewable.

(v) The only energy produced by a hydroelectric facility to be considered renewable shall be from a hydroelectric facility with a generating capacity of 80 megawatts or less. This may include an existing hydroelectric facility retrofitted with advanced technologies.

(vi) After conducting administrative proceedings, the board may add technologies or technology categories to the above list; provided, however, that the following technologies shall not be considered renewable energy supplies: coal, oil, and natural gas, except where gas is used in fuel cells.

(b) "Tradeable renewable energy credits" means all of the environmental attributes associated with a single unit of energy generated by a renewable energy source where:

(i) those attributes are transferred or recorded separately from that unit of energy;

(ii) the party claiming ownership of the tradeable renewable energy credits has acquired the exclusive legal ownership of all, and not less than all the environmental attributes associated with that unit of energy; and

(iii) exclusive legal ownership can be verified through an auditable contract path or pursuant to the system established or authorized by the public service board or any program for tracking and verification of the ownership of environmental attributes of energy legally recognized in any state or province and approved by the board.