LEGISLATIVE COMMITTEE MINUTES

SB204

Bill as Introduced

SB 204 - AS INTRODUCED

2019 SESSION

19-0886
10/03

SENATE BILL ***204***

AN ACT relative to distributed energy resources and consumer energy storage.

SPONSORS: Sen. Watters, Dist 4; Sen. Feltes, Dist 15; Sen. Fuller Clark, Dist 21; Sen. Morgan, Dist 23; Sen. Hennessey, Dist 5; Rep. Oxenham, Sull. 1; Rep. Somssich, Rock. 27

COMMITTEE: Energy and Natural Resources

ANALYSIS

This bill modifies the regulation of distributed energy resources of electric utilities, provides for electric consumer energy storage systems, and enables municipalities to adopt a property tax exemption for electric energy storage systems.

Explanation: Matter added to current law appears in ***bold italics.***
Matter removed from current law appears [~~in brackets and struckthrough.~~]
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

19-0886
10/03

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Nineteen

AN ACT relative to distributed energy resources and consumer energy storage.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Chapter Title. Amend the chapter title of RSA 374-G to read as follows:

CHAPTER 374-G

~~[ELECTRIC UTILITY INVESTMENT IN]~~

DISTRIBUTED ENERGY RESOURCES

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall not be interpreted to hinder or discourage market-based development of battery storage.***

3 Definition; Distributed Energy Resources. Amend RSA 374-G:2 to read as follows:

374-G:2 Definitions; Exclusions.

I. The following definitions shall apply in this chapter except as otherwise provided:

(a) "Commission" means the public utilities commission.

(b) "Distributed energy resources" means [~~electric generation equipment, including clean and renewable generation, energy storage, energy efficiency, demand response, load reduction or control programs, and~~] technologies or devices, ***including but not limited to energy storage and/or electric generation equipment, including clean and renewable generation,*** located on or interconnected to the local electric distribution system for purposes including but not limited to reducing line losses, supporting voltage regulation, or peak load shaving, as part of a strategy for minimizing ***energy,*** transmission, and distribution costs [~~as provided in RSA 374-F:3, III~~].

(c) "Energy storage system" means any commercially available, customer-sited system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

II. "Distributed energy resources" in this chapter shall exclude electric generation equipment interconnected with the local electric distribution system at a single point or through a

customer's own electrical wiring that is in excess of 5 megawatts.

III. For the purposes of this chapter, energy storage shall not be considered to be electric generation.

4 Electric Generation Equipment Funded by Public Utility. Amend RSA 374-G:3 to read as follows:

374-G:3 Electric Generation Equipment Funded by Public Utility; Requirements. Any electric generation equipment funded in part by a public utility under this chapter is subject to the following requirements:

I. The energy produced by electric generation equipment owned by the public utility shall be used as an offset to distribution system losses or the public utility company's own use***, or in another manner approved by the commission that reduces the energy costs***;

~~[II. The energy produced by electric generation equipment utilizing a non-renewable fuel source that is owned by a customer, or sited on a customer's property shall be used to displace the customer's own use;~~

~~III. The energy produced by electric generation equipment utilizing a renewable fuel source that is owned by a customer, or sited on the consumer's premises shall be used to displace the customers own use; however, if energy is occasionally generated in excess of the customer's energy requirements, it may be credited to the customer's account in a subsequent period.~~

~~IV.~~] ***II.*** Any biomass-fueled generation shall meet the emission requirements to qualify as eligible biomass technology under RSA 362-F:2, VIII.

[~~V.~~] ***III.*** Any fossil-fuel fueled generation shall produce combined heat and power with a minimum energy efficiency of 60 percent, measured as usable thermal and electrical output in BTUs divided by fuel input in BTUs, shall be installed as an integrated combined heat and power application, and shall meet the following emission standards (in lbs/MW-H): NOx-0.07; CO-0.10; VOCs-0.02. A credit to meet the emission standard may be applied at the rate of one MW-H for each 3.4 million BTUs of heat recovered.

[~~VI.~~] ***IV.*** These requirements apply in addition to and do not preempt or replace any emission standards or permitting requirements applicable to a given generation facility under any other applicable state or federal law.

5 Investments in Distributed Energy Resources. Amend RSA 374-G:4 to read as follows:

374-G:4 Investments in Distributed Energy Resources.

I. Notwithstanding any other provision of law to the contrary, as provided in RSA 374-G:5, a New Hampshire electric public utility may invest in or own distributed energy resources, located on or inter-connected to the local electric distribution system.

II. Distributed electric generation owned by or receiving investments from an electric utility under this section shall be limited to a cumulative maximum in megawatts of [~~6~~] ***15*** percent of the utility's total distribution peak load in megawatts ***unless otherwise permitted by the commission.***

~~[III. In addition, once the cumulative generation authorized under this chapter for a given public utility reaches 3 percent of the utility's total distribution peak load in megawatts, then that utility shall not be allowed to add any additional non-renewable generation under this chapter, until the cumulative renewable generation installed pursuant to this chapter, as a percentage of total generation installed pursuant to this chapter, shall equal or exceed twice the sum of the then-applicable percentage requirements for class I and class II under RSA 362-F:3.]~~

6 Rate Filing; Authorization. RSA 374-G:5 is repealed and reenacted to read as follows:

374-G:5 Rate Filing; Authorization.

I. A New Hampshire electric public utility may seek rate recovery for its portion of investments in distributed energy resources from the commission by making an appropriate rate filing demonstrating that the investments are in the public interest. Such filing shall include information demonstrating the public utility's evaluation of:

(a) The economic and environmental impacts of the proposed investment.

(b) The costs, benefits, and rate implications to the participating customers, to the company's default service customers, and to the utility's distribution customers.

(c) The steps taken to reasonably minimize the costs of the project to its customers.

(d) The proposed form of recovery for the investments.

II. The commission shall authorize the public utility's recovery of investments made in distributed energy resources, if it finds that such recovery is in the public interest. Determination of the public interest under this section shall include the following factors:

(a) The effect on the reliability, safety, and efficiency of electric service.

(b) The costs and benefits to the utility's customers, including but not limited to a demonstration that the company has reasonably minimized the costs of the project to ratepayers.

(c) Whether the expected value of the economic benefits of the investment to the utility's ratepayers over the life of the investment outweigh the economic costs to the utility's ratepayers.

(d) The effect on competition within the region's electricity markets and the state's energy services market.

(e) The costs and benefits to any participating customer or customers, with ratepayer savings to all customer classes, particularly low-income customers.

III. Authorized and prudently incurred investments shall be recovered under this section in a utility's base distribution rates as a component of rate base, and cost recovery shall include the recovery of depreciation, a return on investment, taxes, and other operating and maintenance expenses directly associated with the investment, net of any offsetting revenues received by the utility directly attributable to the investment. The utility may recover all reasonable costs associated with the filing, whether or not the application is approved by the commission.

IV. The commission may add an incentive to the return on equity component as it deems appropriate to encourage public utility investments in distributed energy resources.

V. The commission shall approve, disapprove, or approve with conditions a utility rate filing under this section within 90 days of its filing. The commission may extend this deadline to 6 months at its discretion for any filing involving an investment in excess of $1,000,000. The commission may also extend the deadline at its discretion for failure of the applicant to respond to data requests on an expedited timeline, but in no event shall such deadline exceed 12 months from the date of filing.

7 New Section; Customer Energy Storage Systems. Amend RSA 374-G by inserting after section 7 the following new section:

374-G:8 Customer Energy Storage Systems.

I. The commission shall adopt rules allowing the installation, interconnection, and use of energy storage systems by customers of utilities, the commission shall incorporate the following principles into the rules:

(a) It is in the public interest to limit barriers to the installation, interconnection, and use of customer-sited energy storage systems in New Hampshire;

(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property without the burden of unnecessary restrictions or regulations and without discriminatory rates or fees;

(c) Utility approval processes and any required interconnection reviews of energy storage systems shall be simple, streamlined, and affordable for customers; and

(d) Utilities shall not require the installation of customer-sited meters in addition to a single net energy meter for the purposes of monitoring energy storage systems; except that the commission may authorize the requirement of metering for certain large energy storage systems, as determined by the commission.

II. Nothing in this section alters or supersedes either:

(a) The principles of net energy metering under RSA 362-A:9; or

(b) Any existing electrical permit requirements or any licensing or certification requirements for installers, manufacturers, or equipment.

8 Procedure for Adoption of Property Tax Exemption. Amend the introductory paragraph of RSA 72:27-a, I, to read as follows.

I. Any town or city may adopt the provisions of RSA 72:28, RSA 72:28-b, RSA 72:29-a, RSA 72:35, RSA 72:37, RSA 72:37-b, RSA 72:38-b, RSA 72:39-a, RSA 72:62, RSA 72:66, RSA 72:70, RSA 72:76, [~~or~~] RSA 72:82, ***or RSA 72:85*** in the following manner:

9 New Subdivision; Electric Energy Storage Systems Exemption. Amend RSA 72 by inserting after section 83 the following new subdivision:

Electric Energy Storage Systems Exemption

72:84 Definition of Electric Energy Storage System. In this subdivision "electric energy storage system" means a facility located behind a retail meter that stores electrical energy that is otherwise produced by an electricity generator or uses electricity to concentrate and store thermal energy, by

electrical, chemical, mechanical, or thermal means, for discharge or use at a later time, whether in the form of thermal energy to meet space or process heating or cooling loads or electricity, which can be used to reduce peak loads, compensate for variability in renewable energy production, or provide other grid services, and which does not participate in any wholesale energy markets administered by ISO New England as a registered asset or otherwise. An electric energy storage system shall not include conventional electric resistance or gas domestic hot water heaters.

72:85 Exemption for Electric Energy Storage Systems. Each city and town may adopt under RSA 72:27-a an exemption from the assessed value, for property tax purposes, for persons owning real property which is equipped with an electrical energy storage system.

72:86 Application for Exemption. Applications for exemptions under RSA 72:85 shall be governed by the provisions of RSA 72:33, RSA 72:34, and RSA 72:34-a.

10 Department of Revenue Administration; Equalization; Reference Added. Amend RSA 21-J:3, XIII to read as follows:

XIII. Equalize annually by May 1 the valuation of the property as assessed in the several towns, cities, and unincorporated places in the state including the value of property exempt pursuant to RSA 72:37, 72:37-b, 72:39-a, 72:62, 72:66, [~~and~~] 72:70***, and 72:85***, property which is subject to tax relief under RSA 79-E:4, and property which is subject to tax relief under RSA 79-E:4-a, by adding to or deducting from the aggregate valuation of the property in towns, cities, and unincorporated places such sums as will bring such valuations to the true and market value of the property, and by making such adjustments in the value of other property from which the towns, cities, and unincorporated places receive taxes or payments in lieu of taxes, including renewable generation facility property subject to a payment in lieu of taxes agreement under RSA 72:74, as may be equitable and just, so that any public taxes that may be apportioned among them shall be equal and just. In carrying out the duty to equalize the valuation of property, the commissioner shall follow the procedures set forth in RSA 21-J:9-a.

11 Department of Revenue Administration; Rules; Reference Added. Amend RSA 72:36, I to read as follows:

I. The commissioner's interpretation of RSA 72:28, 72:28-b, 72:28-c, 72:29, 72:29-a, 72:30, 72:31, 72:32, 72:33, 72:34, 72:34-a, 72:35, 72:36-a, 72:37, 72:37-a, 72:37-b, 72:38-a, 72:38-b, 72:39-a, 72:39-b, 72:41, 72:62, 72:66, [~~and~~] 72:70***, and 72:85***; and

12 Repeal. RSA 374-G:7, relative to an exclusion for renewable generating equipment, is repealed.

13 Effective Date. This act shall take effect 60 days after its passage.

SB 204 - AS AMENDED BY THE SENATE

03/27/2019 1178s

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SENATE BILL ***204***

AN ACT relative to distributed energy resources and consumer energy storage.

SPONSORS: Sen. Watters, Dist 4; Sen. Feltes, Dist 15; Sen. Fuller Clark, Dist 21; Sen. Morgan, Dist 23; Sen. Hennessey, Dist 5; Rep. Oxenham, Sull. 1; Rep. Somssich, Rock. 27

COMMITTEE: Energy and Natural Resources

ANALYSIS

This bill modifies the regulation of distributed energy resources of electric utilities, provides for electric consumer energy storage systems, and enables municipalities to adopt a property tax exemption for electric energy storage systems.

Explanation: Matter added to current law appears in ***bold italics.***
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STATE OF NEW HAMPSHIRE

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AN ACT relative to distributed energy resources and consumer energy storage.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Chapter Title. Amend the chapter title of RSA 374-G to read as follows:

CHAPTER 374-G

~~[ELECTRIC UTILITY INVESTMENT IN~~]

DISTRIBUTED ENERGY RESOURCES

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall not be interpreted to hinder or discourage market-based development of energy storage.***

3 Definition; Distributed Energy Resources. Amend RSA 374-G:2 to read as follows:

374-G:2 Definitions; Exclusions.

I. The following definitions shall apply in this chapter except as otherwise provided:

(a) "Commission" means the public utilities commission.

(b) "Distributed energy resources" means [~~electric generation equipment, including clean and renewable generation, energy storage, energy efficiency, demand response, load reduction or control programs, and~~] technologies or devices, ***including but not limited to energy storage and/or electric generation equipment, including clean and renewable generation,*** located on or interconnected to the local electric distribution system for purposes including but not limited to reducing line losses, supporting voltage regulation, or peak load shaving, as part of a strategy for minimizing ***energy,*** transmission, and distribution costs [~~as provided in RSA 374-F:3, III~~].

(c) "Energy storage" means any system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

II. "Distributed energy resources" in this chapter shall exclude electric generation equipment interconnected with the local electric distribution system at a single point or through a customer's own electrical wiring that is in excess of 5 megawatts.

III. Energy storage funded by a public utility shall be consistent with, as determined by the commission, the provisions of RSA 374-F.

4 Electric Generation Equipment Funded by Public Utility. Amend RSA 374-G:3 to read as follows:

374-G:3 Electric Generation Equipment Funded by Public Utility; Requirements. Any electric generation equipment funded in part by a public utility under this chapter is subject to the following requirements:

I. The energy produced by electric generation equipment owned by the public utility shall be used as an offset to distribution system losses or the public utility company's own use, *or in another manner approved by the commission that reduces the energy costs*;

~~[II. The energy produced by electric generation equipment utilizing a non-renewable fuel source that is owned by a customer, or sited on a customer's property shall be used to displace the customer's own use;~~

~~III. The energy produced by electric generation equipment utilizing a renewable fuel source that is owned by a customer, or sited on the consumer's premises shall be used to displace the customers own use; however, if energy is occasionally generated in excess of the customer's energy requirements, it may be credited to the customer's account in a subsequent period.~~

~~IV.~~] *II.* Any biomass-fueled generation shall meet the emission requirements to qualify as eligible biomass technology under RSA 362-F:2, VIII.

~~[V.~~] *III.* Any fossil-fuel fueled generation shall produce combined heat and power with a minimum energy efficiency of 60 percent, measured as usable thermal and electrical output in BTUs divided by fuel input in BTUs, shall be installed as an integrated combined heat and power application, and shall meet the following emission standards (in lbs/MW-H): NOx-0.07; CO-0.10; VOCs-0.02. A credit to meet the emission standard may be applied at the rate of one MW-H for each 3.4 million BTUs of heat recovered.

~~[VI.~~] *IV.* These requirements apply in addition to and do not preempt or replace any emission standards or permitting requirements applicable to a given generation facility under any other applicable state or federal law.

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I. A New Hampshire electric public utility may seek rate recovery for its portion of investments in distributed energy resources from the commission by making an appropriate rate filing demonstrating that the investments are in the public interest. Such filing shall include information demonstrating the public utility's evaluation of:

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(b) The costs, benefits, and rate implications to the participating customers, to the company's default service customers, and to the utility's distribution customers.

(c) The steps taken to reasonably minimize the costs of the project to its customers.

(d) The proposed form of recovery for the investments.

II. The commission shall authorize the public utility's recovery of investments made in distributed energy resources, if it finds that such recovery is in the public interest. Determination of the public interest under this section shall include the following factors:

(a) The effect on the reliability, safety, and efficiency of electric service.

(b) The costs and benefits to the utility's customers, including but not limited to a demonstration that the company has reasonably minimized the costs of the project to ratepayers.

(c) Whether the expected value of the economic benefits of the investment to the utility's ratepayers over the life of the investment outweigh the economic costs to the utility's ratepayers.

(d) The effect on competition within the region's electricity markets and the state's energy services market.

(e) The costs and benefits to any participating customer or customers, with ratepayer savings to all customer classes, particularly low-income customers.

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IV. The commission may add an incentive to the return on equity component as it deems appropriate to encourage public utility investments in distributed energy resources.

V. The commission shall approve, disapprove, or approve with conditions a utility rate filing under this section within 90 days of its filing. The commission may extend this deadline to 6 months at its discretion for any filing involving an investment in excess of $1,000,000. The commission may also extend the deadline at its discretion for failure of the applicant to respond to data requests on an expedited timeline, but in no event shall such deadline exceed 12 months from the date of filing.

6 New Section; Customer Energy Storage Systems. Amend RSA 374-G by inserting after section 7 the following new section:

374-G:8 Customer Energy Storage Systems.

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(a) It is in the public interest to limit barriers to the installation, interconnection, and use of customer-sited energy storage systems in New Hampshire;

(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property without the burden of unnecessary restrictions or regulations and without unduly discriminatory rates or fees;

(c) Utility approval processes and any required interconnection reviews of energy storage systems shall be simple, streamlined, and affordable for customers; and

(d) Utilities shall not require the installation of customer-sited meters in addition to a single net energy meter for the purposes of monitoring energy storage systems; except that the commission may authorize the requirement of metering for certain large energy storage systems, as determined by the commission.

II. Nothing in this section alters or supersedes either:

(a) The principles of net energy metering under RSA 362-A:9; or

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I. Any town or city may adopt the provisions of RSA 72:28, RSA 72:28-b, RSA 72:29-a, RSA 72:35, RSA 72:37, RSA 72:37-b, RSA 72:38-b, RSA 72:39-a, RSA 72:62, RSA 72:66, RSA 72:70, RSA 72:76, [~~or~~] RSA 72:82, ***or RSA 72:85*** in the following manner:

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Electric Energy Storage Systems Exemption

72:84 Definition of Electric Energy Storage System. In this subdivision "electric energy storage system" means a facility located behind a retail meter that stores electrical energy that is otherwise produced by an electricity generator or uses electricity to concentrate and store thermal energy, by electrical, chemical, mechanical, or thermal means, for discharge or use at a later time, whether in the form of thermal energy to meet space or process heating or cooling loads or electricity, which can be used to reduce peak loads, compensate for variability in renewable energy production, or provide other grid services, and which does not participate in any wholesale energy markets administered by ISO New England as a registered asset or otherwise. An electric energy storage system shall not include conventional electric resistance or gas domestic hot water heaters.

72:85 Exemption for Electric Energy Storage Systems. Each city and town may adopt under RSA 72:27-a an exemption from the assessed value, for property tax purposes, for persons owning real property which is equipped with an electrical energy storage system.

72:86 Application for Exemption. Applications for exemptions under RSA 72:85 shall be governed by the provisions of RSA 72:33, RSA 72:34, and RSA 72:34-a.

9 Department of Revenue Administration; Equalization; Reference Added. Amend RSA 21-J:3, XIII to read as follows:

XIII. Equalize annually by May 1 the valuation of the property as assessed in the several towns, cities, and unincorporated places in the state including the value of property exempt pursuant to RSA 72:37, 72:37-b, 72:39-a, 72:62, 72:66, [~~and~~] 72:70, ***and 72:85***, property which is subject to tax relief under RSA 79-E:4, and property which is subject to tax relief under RSA 79-E:4-a, by adding to or deducting from the aggregate valuation of the property in towns, cities, and unincorporated places such sums as will bring such valuations to the true and market value of the property, and by making such adjustments in the value of other property from which the towns, cities, and unincorporated places receive taxes or payments in lieu of taxes, including renewable generation facility property subject to a payment in lieu of taxes agreement under RSA 72:74, as may be equitable and just, so that any public taxes that may be apportioned among them shall be equal and just. In carrying out the duty to equalize the valuation of property, the commissioner shall follow the procedures set forth in RSA 21-J:9-a.

10 Department of Revenue Administration; Rules; Reference Added. Amend RSA 72:36, I to read as follows:

I. The commissioner's interpretation of RSA 72:28, 72:28-b, 72:28-c, 72:29, 72:29-a, 72:30, 72:31, 72:32, 72:33, 72:34, 72:34-a, 72:35, 72:36-a, 72:37, 72:37-a, 72:37-b, 72:38-a, 72:38-b, 72:39-a, 72:39-b, 72:41, 72:62, 72:66, [~~and~~] 72:70, ***and 72:85***; and

11 Repeal. RSA 374-G:7, relative to an exclusion for renewable generating equipment, is repealed.

12 Effective Date. This act shall take effect 60 days after its passage.

SB 204 - AS AMENDED BY THE HOUSE

03/27/2019 1178s
8May2019... 1750h

2019 SESSION

19-0886
10/03

SENATE BILL ***204***

AN ACT relative to encouraging the development of electrical energy storage by both private market participants and regulated electric utility companies.

SPONSORS: Sen. Watters, Dist 4; Sen. Feltes, Dist 15; Sen. Fuller Clark, Dist 21; Sen. Morgan, Dist 23; Sen. Hennessey, Dist 5; Rep. Oxenham, Sull. 1; Rep. Somssich, Rock. 27

COMMITTEE: Energy and Natural Resources

AMENDED ANALYSIS

This bill provides for incentives, target, and goals for electric energy storage projects by private market participants and electric utilities. The bill also enables municipalities to adopt a property tax exemption for electric energy storage systems.

Explanation: Matter added to current law appears in ***bold italics.***
Matter removed from current law appears [~~in brackets and struckthrough.~~]
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

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19-0886
10/03

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Nineteen

AN ACT relative to encouraging the development of electrical energy storage by both private market participants and regulated electric utility companies.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Findings. The general court finds that:

I. Innovative energy storage technology has the potential to reduce retail electric rates, increase the utilization of renewable energy in New Hampshire, improve the state's fuel diversity portfolio and public health, reduce electricity generators' dependence on natural gas, and minimize ratepayer exposure to volatile natural gas prices.

II. Modern energy storage technology holds the promise of reducing retail electric rates by breaking the tight nexus between supply and demand by eliminating the grid administrator's need to balance the demand and supply of electric energy at millions of points on the grid at any given time, thus allowing for the widespread adoption of more flexible and lower-cost time-of-use rates.

III. Energy storage at utility scale can also serve as back-up for the greater use of intermittent renewable energy resources, reducing air pollution from the burning of fossil fuels, including both toxic chemicals and particulate matter, and negative impacts on both public health and environmental quality.

IV. Innovative energy storage technologies can stimulate investment and employment in the state, thereby making a positive contribution to New Hampshire's economy.

V. Energy storage also has the potential to significantly reduce New Hampshire's effective peak demand for electricity. Reducing peak electricity demand is in the public interest because such demand disproportionately drives New Hampshire families' and businesses' energy cost burden. Absent energy storage at scale, electric system reliability requires the transmission and distribution system to be built out to meet peak demand, with the result that ratepayers must pay for system expansions and upgrades that lie idle for most the year. Furthermore, the generation units that grid administrators call on to meet peak demand are generally the most inefficient, most expensive, and most polluting units.

VI. Development and deployment of energy storage resources should not be artificially constrained by arguments over whether or not storage should be considered either generation or transmission and distribution under the restructuring statute, RSA 374-F. It is neither necessary nor appropriate to apply the restructuring principle of unbundling to energy storage, because on the one hand, storage is not a natural monopoly like transmission and distribution and therefore unregulated market participants should be allowed to participate fully in its development; and on

the other hand, there is no public policy reason to prohibit the participation of utility companies in such development, so long as the financial risks associated with the development, construction, and operation of utility-scale front-of-meter storage units is not shifted to retail electric ratepayers and the concentrated economic power of traditional utilities is not used to monopolize the development of storage technology at the expense of private market participants. For all these reasons, the general court finds it is in the public interest to stimulate the development and deployment of innovative energy storage technologies by both private market participants and regulated electric utility companies in New Hampshire.

2 New Chapter; Energy Storage. Amend RSA by inserting after chapter 374-G the following new chapter:

CHAPTER 374-H

ENERGY STORAGE

374-H:1 Purpose. Innovative energy storage technologies can reduce retail electric rates by encouraging the development and adoption of time-of-use rates, decrease electric generators' dependence on natural gas and ratepayers' exposure to volatile natural gas prices, support the development and integration of renewable energy sources into the regional electric system, and improve the state's fuel diversity portfolio, environment, and public health. It is therefore in the public interest to encourage investment in and development and deployment of innovative energy storage technologies by both private market participants and regulated electric utilities as provided in this chapter.

374-H:2 Definitions. In this chapter:

I. "Commission" means the public utilities commission.

II. "Behind-the-meter storage" means an energy storage project that is installed on a retail electricity customer's premises and is electrically connected to the customer's side of the electric utility meter.

III. "Bring your own device" means a program for encouraging non-utility owned, and especially retail-customer owned, behind-the-meter energy storage to provide the greatest value possible to the electricity system, particularly in terms of peak reduction and avoided transmission and distribution costs. Such a program shall compensate participating behind-the-meter energy storage for a fair share, as determined by the commission, of the value it provides to the electricity system.

IV. "Energy storage" means batteries, flywheels, compressed air energy systems, sensible heat storage or any other technology, system, or device capable of taking electric energy, storing it in some form of usable energy, and converting it back into electricity either for immediate on-site consumption or discharge back onto the grid so as to meet demand for electrical supply at a later time. Such term shall include standalone technologies, systems, and devices, as well as those co-located with or incorporated into a renewable energy source. Energy storage shall not be considered

electric generation within the meaning of the restructuring statute, RSA 374-F, for purposes of this chapter and RSA 374-G.

V. "Energy storage project" means an individual energy storage system or an aggregation of multiple energy storage systems.

VI. "Front-of-meter storage" means any energy storage that is not behind-the-meter storage.

VII. "ISO-New England" means the Independent System Operator New England or any successor entity responsible for administration of the New England regional electric grid.

VIII. "Local network service" means the term as defined in ISO-New England's transmission, markets, and services tariff, section II.

IX. "Non-utility" means any entity that is not a regulated utility that develops, builds, owns, operates, or assists in the operation of one or more energy storage projects, including retail customers that buy behind-the-meter storage installed on their property.

X. "Peak demand" means the total combined annual coincident peak energy demand of all utility service territories in New Hampshire.

XI. "Regional network service" means the term as defined in ISO-New England's transmission, markets, and services tariff, section II.

XII. "Renewable energy source" means a Class I, Class II, or Class IV renewable energy source as defined in RSA 362-F:4.

XIII. "Utility" means any regulated entity that distributes electricity to retail customers in New Hampshire.

XIV. "Wholesale electricity markets" means any energy, capacity, or ancillary service market that ISO-New England administers.

374-H:3 Energy Storage Pilots and Targets.

I. No later than December 31, 2019, the commission shall initiate a proceeding with the goal, if practicable, of ensuring that by December 31, 2021, each regulated utility subject to its jurisdiction shall have initiated and completed at least 2 pilot energy storage projects, one of which offers a meaningful opportunity for non-utilities to develop and own the energy storage systems and one of which that is intended to promote the development of front-of-meter utility-owned energy storage. As part of any non-utility pilot programs, the commission shall create special tariffs or other mechanisms, including but not necessarily limited to time-of-use rates, to ensure that utilities compensate such programs for a fair share, as determined by the commission, of their peak demand reduction value and avoided transmission and distribution costs, among other such cost savings.

II. Either in the same or a separate docket, by December 31, 2019, the commission shall initiate a proceeding to determine if an energy storage target or goal of reducing the state's peak demand by a specific percentage of up to 15 percent when discharging coincidentally would provide net financial benefits to ratepayers. The commission shall complete the target proceeding under this paragraph no later than December 31, 2022. This proceeding shall consider:

(a) Energy costs that energy storage projects might avoid, including but not limited to potential reductions in ISO-New England energy and capacity market clearing prices.

(b) Transmission and distribution costs that energy storage projects might avoid, including but not limited to deferring or avoiding the need for new transmission or distribution infrastructure as well as reducing regional and local network service charges.

(c) Any potential ability energy storage projects might have to reduce electricity price volatility.

(d) Any potential grid reliability and resiliency benefits energy storage projects might provide.

(e) Any environmental or renewable portfolio standard compliance costs energy storage might help to avoid or reduce through such means as enabling more cost-effective renewable energy integration, reducing emissions from less efficient peaking power plants, and reduced cycling at thermal power plants.

(f) The potential cost to ratepayers, if any, of reaching a target or goal of reducing the state's peak demand by up to 15 percent when discharging coincidentally, and whether a higher or lower target or goal would be more likely to be of greater overall benefit to ratepayers.

(g) Any other benefit the commission deems relevant.

III. If the commission, in the target proceeding under paragraph II, finds that a specific energy storage target or goal would provide net financial benefits to ratepayers, it shall set a target or goal designed to encourage the deployment of sufficient energy storage capacity on the state's electricity system to reduce New Hampshire's peak demand by up to 15 percent when discharging coincidentally. The commission shall measure this reduction by using the state's 2018 peak demand as a baseline.

(a) The commission shall establish a timeline designed to reach the target or goal by December 31, 2030. The timeline shall also specify that enough energy storage capacity to reduce peak demand is built each year following December 31, 2022, until the full target or goal is met.

(b) If the commission finds that meeting such an energy storage target would provide net financial benefits to ratepayers, the commission may by rule or ratemaking approve tariffs, tariff riders, or other appropriate cost-recovery programs for energy storage investments funded by ratepayers, provided that the commission shall not put ratepayers at risk for utility investments in utility-scale front-of-meter energy storage projects. Any such investment by utilities shall either be made by their unregulated for-profit affiliates, or the commission shall find, after application by the utility and an adjudicative proceeding under RSA 541-A, that such investment poses no risk of stranded costs to ratepayers.

(c) The commission shall determine the amount of megawatts and megawatt-hours of energy storage capacity needed to reduce peak demand by the amount any target or goal adopted under this section requires.

IV. Subject to paragraph VI, the commission's regulations or orders shall ensure non-utilities develop and own at least 1/2 of the energy storage capacity required under any RSA 374-H:3 target or goal. The commission's regulations or orders applicable to non-utilities shall establish a preference for non-utility energy storage projects that avoid or reduce transmission and distribution costs. Such avoided or reduced costs shall include, but are not limited to, deferring the need for new distribution and transmission infrastructure or reducing the utility's regional and local network charges.

V. The commission shall ensure that any utility-proposed behind-the-meter energy storage project or program shall incorporate a meaningful opportunity for non-utilities to develop and own a significant portion of the energy storage systems that comprise the project or that will be developed as part of the program.

VI. If the commission finds that non-utilities can prudently and safely develop more than 1/2 of the energy storage capacity required to meet a target under RSA 374-H:3, the commission shall give a preference to such non-utility energy storage projects over utility energy storage projects.

VII. If the commission finds that non-utilities cannot prudently and safely develop enough energy storage capacity to meet a target set under RSA 374-H:3, the commission shall allow one or more utilities to develop and own whatever additional number of energy storage projects are needed to meet such target.

VIII. Notwithstanding any provision of RSA 374-F or RSA 374-G, the commission's regulations or orders may require a utility to compensate a non-utility for a fair share, as determined by the commission, of the value of any transmission or distribution costs the utility is likely to avoid because of the non-utility energy storage project, to the extent practicable based on determinable cost components.

(a) For behind-the-meter storage, the regulations or orders shall accomplish this by creating a bring-your-own-device peak reduction program. As part of such a program, the commission shall create special tariffs or other mechanisms, including but not necessarily limited to time-of-use rates, that ensure utilities compensate such projects for a fair share, as determined by the commission, of their peak reduction value, as well as the value of all transmission or distribution costs the utility will likely avoid because of such projects.

(b) For front-of-meter storage, the regulations or orders may accomplish this through any mechanism the commission deems just and reasonable.

(c) Notwithstanding any provision of RSA 374-F or RSA 374-G, if a non-utility energy storage project is not eligible or chooses not to participate in wholesale electricity markets, the commission's regulations or orders shall enable the non-utility to be compensated for the fair share, as determined by the commission, of any energy costs avoided because of the energy storage project.

(d) If the non-utility energy storage project avoids the need for a new distribution or transmission project the utility could have added to its rate base, the commission may allow the

utility to include all or part of the value of the corresponding portion of its payment to the non-utility in its rates if it finds doing so is just and reasonable and will still provide ratepayers with savings relative to a scenario in which no non-utility energy storage project had been built and the utility built a new distribution or transmission project instead.

IX. Notwithstanding any provision of RSA 374-F or RSA 374-G, the commission's regulations or orders shall also provide that a utility may develop and own front-of-meter energy storage projects that reduce transmission or distribution costs.

(a) A utility may contractually sell the right to bid such utility-owned energy storage projects that serve a transmission or distribution purpose into wholesale electricity markets to a non-utility. Any such contract shall provide that any compensation the non-utility pays to the utility for this right shall in no way depend upon the energy storage project's performance in wholesale electricity markets, such that the non-utility bears all risk of project underperformance in the wholesale market. The utility shall use all compensation a non-utility pays the utility for the contractual right under this subparagraph to reduce transmission and distribution charges for all ratepayers.

(b) Alternatively, a regulated utility may sell or otherwise transfer the right to develop one or more front-of-meter projects to an unregulated for-profit affiliate of the utility.

X. Nothing in this section shall give a utility any new right to bid any energy storage project it owns into wholesale electricity markets itself, or to otherwise directly participate in wholesale electricity markets.

XI. The provisions of RSA 374-H:3, V through IX shall remain in effect after the pilots in RSA 374-H:3, I are completed and any targets in RSA 374-H:3, II through IV are met.

374-H:4 Customer Energy Storage Systems.

I. The commission shall adopt rules allowing the installation, interconnection, and use of energy storage systems by customers of utilities, and shall incorporate the following principles into the rules:

(a) It is in the public interest to limit barriers to the installation, interconnection, and use of customer-sited energy storage systems in New Hampshire;

(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property, subject to appropriate size and safety requirements established by the commission, without the burden of unnecessary restrictions or regulations and without unduly discriminatory rates or fees;

(c) Utility approval processes and any required interconnection reviews of energy storage systems shall be simple, streamlined, and affordable for customers; and

(d) Utilities shall not require the installation of customer-sited meters in addition to a single net energy meter for the purposes of monitoring energy storage systems; except that the

commission may authorize the requirement of metering for certain large energy storage systems, as determined by the commission.

II. Nothing in this section alters or supersedes either:

(a) The principles of net energy metering under RSA 362-A:9; or

(b) Any existing electrical permit requirements or any licensing or certification requirements for installers, manufacturers, or equipment.

3 New Subparagraph; Distributed Energy Resources; Definition. Amend RSA 374-G:2, I by inserting after subparagraph (b) the following new subparagraph:

(c) "Energy storage" shall have the same meaning as "energy storage" as defined in RSA 374-H:2, IV.

4 Distributed Energy Resources; Electric Generation Equipment Funded by Public Utility. Amend RSA 374-G:3, III to read as follows:

III. The energy produced by electric generation equipment utilizing a renewable fuel source that is owned by a customer, or sited on the consumer's premises shall be used to displace the customers own use[~~; however, if energy is occasionally generated in excess of the customer's energy requirements, it may be credited to the customer's account in a subsequent period~~] ***in the first instance; energy generated in excess of the customer's own requirements, if any, shall be treated as net metered energy subject to the provisions of RSA 362-A:9.***

5 Procedure for Adoption of Property Tax Exemption. Amend the introductory paragraph of RSA 72:27-a, I, to read as follows.

I. Any town or city may adopt the provisions of RSA 72:28, RSA 72:28-b, RSA 72:29-a, RSA 72:35, RSA 72:37, RSA 72:37-b, RSA 72:38-b, RSA 72:39-a, RSA 72:62, RSA 72:66, RSA 72:70, RSA 72:76, [~~or~~] RSA 72:82***, or RSA 72:85*** in the following manner:

6 New Subdivision; Electric Energy Storage Systems Exemption. Amend RSA 72 by inserting after section 83 the following new subdivision:

Electric Energy Storage Systems Exemption

72:84 Definition of Electric Energy Storage System. In this subdivision "electric energy storage system" means a facility located behind a retail meter that stores electrical energy that is otherwise produced by an electricity generator or uses electricity to concentrate and store thermal energy, by electrical, chemical, mechanical, or thermal means, for discharge or use at a later time, whether in the form of thermal energy to meet space or process heating or cooling loads or electricity, which can be used to reduce peak loads, compensate for variability in renewable energy production, or provide other grid services. An electric energy storage system shall not include conventional electric resistance or gas domestic hot water heaters.

72:85 Exemption for Electric Energy Storage Systems. Each city and town may adopt under RSA 72:27-a an exemption from the assessed value, for property tax purposes, for persons owning real property which is equipped with an electrical energy storage system.

72:86 Application for Exemption. Applications for exemptions under RSA 72:85 shall be governed by the provisions of RSA 72:33, RSA 72:34, and RSA 72:34-a.

7 Department of Revenue Administration; Equalization; Reference Added. Amend RSA 21-J:3, XIII to read as follows:

XIII. Equalize annually by May 1 the valuation of the property as assessed in the several towns, cities, and unincorporated places in the state including the value of property exempt pursuant to RSA 72:37, 72:37-b, 72:39-a, 72:62, 72:66, [~~and~~] 72:70, ***and 72:85***, property which is subject to tax relief under RSA 79-E:4, and property which is subject to tax relief under RSA 79-E:4-a, by adding to or deducting from the aggregate valuation of the property in towns, cities, and unincorporated places such sums as will bring such valuations to the true and market value of the property, and by making such adjustments in the value of other property from which the towns, cities, and unincorporated places receive taxes or payments in lieu of taxes, including renewable generation facility property subject to a payment in lieu of taxes agreement under RSA 72:74, as may be equitable and just, so that any public taxes that may be apportioned among them shall be equal and just. In carrying out the duty to equalize the valuation of property, the commissioner shall follow the procedures set forth in RSA 21-J:9-a.

8 Department of Revenue Administration; Rules; Reference Added. Amend RSA 72:36, I to read as follows:

I. The commissioner's interpretation of RSA 72:28, 72:28-b, 72:28-c, 72:29, 72:29-a, 72:30, 72:31, 72:32, 72:33, 72:34, 72:34-a, 72:35, 72:36-a, 72:37, 72:37-a, 72:37-b, 72:38-a, 72:38-b, 72:39-a, 72:39-b, 72:41, 72:62, 72:66, [~~and~~] 72:70, ***and 72:85***; and

9 Effective Date. This act shall take effect 60 days after its passage.

Amendments

Sen. Watters, Dist 4
March 1, 2019
2019-0743s
10/04

Amendment to SB 204

Amend the bill by replacing section 2 with the following:

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall not be interpreted to hinder or discourage market-based development of energy storage.***

Amend RSA 374-G:2, I(c) as inserted by section 3 of the bill by replacing it with the following:

(c) "Energy storage" means any system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

Amend the bill by replacing section 5 with the following:

5 Investments in Distributed Energy Resources. Amend RSA 374-G:4, II to read as follows:

II. Distributed electric generation owned by or receiving investments from an electric utility under this section shall be limited to a cumulative maximum in megawatts of 6 percent of the utility's total distribution peak load in megawatts ***unless otherwise permitted by the commission.***

Sen. Watters, Dist 4
March 8, 2019
2019-0912s
10/04

Amendment to SB 204

Amend the bill by replacing section 2 with the following:

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall not be interpreted to hinder or discourage market-based development of energy storage.***

Amend RSA 374-G:2, I(c) as inserted by section 3 of the bill by replacing it with the following:

(c) "Energy storage" means any system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

Amend RSA 374-G:2, III as inserted by section 3 of the bill by replacing it with the following:

III. Energy storage funded by a public utility shall be consistent with, as determined by the commission, the provisions of RSA 374-F.

Amend the bill by replacing section 5 with the following:

5 Investments in Distributed Energy Resources. Amend RSA 374-G:4, II to read as follows:

II. Distributed electric generation owned by or receiving investments from an electric utility under this section shall be limited to a cumulative maximum in megawatts of 6 percent of the utility's total distribution peak load in megawatts ***unless otherwise permitted by the commission***.

Amend RSA 374-G:8, I(b) as inserted by section 7 of the bill by replacing it with the following:

(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property without the burden of unnecessary restrictions or regulations and without unduly discriminatory rates or fees;

Sen. Watters, Dist 4
March 15, 2019
2019-1085s
10/04

Amendment to SB 204

Amend the bill by replacing section 2 with the following:

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall not be interpreted to hinder or discourage market-based development of energy storage.***

Amend RSA 374-G:2, I(c) as inserted by section 3 of the bill by replacing it with the following:

(c) "Energy storage" means any system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

Amend RSA 374-G:2, III as inserted by section 3 of the bill by replacing it with the following:

III. Energy storage funded by a public utility shall be consistent with, as determined by the commission, the provisions of RSA 374-F.

Amend the bill by deleting section 5 and renumbering the original sections 6-13 to read as 5-12, respectively.

Amend RSA 374-G:8, I(b) as inserted by section 6 of the bill by replacing it with the following:

(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property without the burden of unnecessary restrictions or regulations and without unduly discriminatory rates or fees;

Energy and Natural Resources
March 20, 2019
2019-1178s
10/04

Amendment to SB 204

Amend the bill by replacing section 2 with the following:

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall not be interpreted to hinder or discourage market-based development of energy storage.***

Amend RSA 374-G:2, I(c) as inserted by section 3 of the bill by replacing it with the following:

(c) "Energy storage" means any system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

Amend RSA 374-G:2, III as inserted by section 3 of the bill by replacing it with the following:

III. Energy storage funded by a public utility shall be consistent with, as determined by the commission, the provisions of RSA 374-F.

Amend the bill by deleting section 5 and renumbering the original sections 6-13 to read as 5-12, respectively.

Amend RSA 374-G:8, I(b) as inserted by section 6 of the bill by replacing it with the following:

(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property without the burden of unnecessary restrictions or regulations and without unduly discriminatory rates or fees;

Committee Minutes

SENATE CALENDAR NOTICE
Energy and Natural Resources

Sen Martha Fuller Clark, Chair
Sen Dan Feltes, Vice Chair
Sen David Watters, Member
Sen Jeb Bradley, Member
Sen Bob Giuda, Member

Date: February 21, 2019

HEARINGS

Tuesday	03/05/2019	
(Day)	(Date)	
Energy and Natural Resources	SH 103	9:00 a.m.
(Name of Committee)	(Place)	(Time)

9:00 a.m.	**SB 74-FN-A**	relative to register of deeds fees used to support the land and community heritage investment program (LCHIP).
9:20 a.m.	**SB 79**	relative to required reporting on waste reduction.
9:40 a.m.	**SB 123**	relative to lost and unaccounted for gas, and relative to electric distribution companies investment in natural gas operations.
10:00 a.m.	**SB 204**	relative to distributed energy resources and consumer energy storage.
10:15 a.m.	**SB 205**	relative to energy efficiency programs funded from the systems benefits charge and adding a member to the energy efficiency and sustainable energy board.
10:30 a.m.	**SB 206**	excluding the cost of lobbying and political activity from the rates of public utilities.

EXECUTIVE SESSION ON PENDING LEGISLATION

Sponsors:

SB 74-FN-A			
Sen. Fuller Clark	Sen. Kahn	Sen. Cavanaugh	Rep. Tucker
SB 79			
Sen. Feltes			
SB 123			
Sen. Fuller Clark	Rep. Balch	Rep. Mann	Rep. Somssich
Rep. McGhee			
SB 204			
Sen. Watters	Sen. Feltes	Sen. Fuller Clark	Sen. Morgan
Sen. Hennessey	Rep. Oxenham	Rep. Somssich	
SB 205			
Sen. Watters	Sen. Kahn	Sen. Chandley	Sen. Dietsch
Sen. Feltes	Sen. Fuller Clark	Sen. Giuda	Sen. Hennessey
Sen. Morgan			
SB 206			
Sen. Feltes	Sen. Fuller Clark	Rep. Hennessey	Rep. Luneau

Griffin Roberge 271-7875

Martha Fuller Clark
Chairman

Senate Energy and Natural Resources Committee

Griffin Roberge 271-7875

SB 204, relative to distributed energy resources and consumer energy storage.

Hearing Date: March 5, 2019.

Time Opened: 11:05 a.m. **Time Closed:** 11:50 a.m.

Members of the Committee Present: Senators Fuller Clark, Feltes, Watters and Bradley.

Members of the Committee Absent: Senator Giuda.

Bill Analysis: This bill modifies the regulation of distributed energy resources of electric utilities, provides for electric consumer energy storage systems, and enables municipalities to adopt a property tax exemption for electric energy storage systems.

Sponsors:

Sen. Watters	Sen. Feltes	Sen. Fuller Clark
Sen. Morgan	Sen. Hennessey	Rep. Oxenham
Rep. Somssich		

Who supports the bill: Senator David Watters (NH Senate District 4), Susan Covert, Clifton Below (City of Lebanon), Howell Montgomery (Liberty Utilities), Donna Gamache (Eversource), Liz-Anne Platt, Cheri Falk (Wilton, NH), Louise Spencer, Deborah Jakabowski, Gale Taylor, Dennis Jakabowski, Erle Pierce (Unitil), Maura Willing, Catherine Corkery (NH Sierra Club), Ruth M. Heath, Senator Jon Morgan (NH Senate District 23).

Who opposes the bill: John Flumerfelt (Calpine Corporation).

Who is neutral on the bill: David Shulock & Tom Frantz (PUC), Don Maurice Kreis (Consumer Advocate), Pentti Aalto (PJA Energy System Design), Jack Ruderman (ReVision Energy), Brianna Brand (Clean Energy NH), Chris Skoglund (NHDES), Ellen Hawes (Acadia Center), Melissa Birchard (Conservation Law Foundation), Chris Rauscher (Sunrun, Inc.), Dan Collins (New England Power Generators).

Summary of testimony presented in support:

Senator David Watters
NH Senate District 4

- Section 2 redefines the purpose statement of RSA 374-G:1. The purpose section is not meant to hinder to discourage market-based development of battery storage.
- Section 3 amends definitions in RSA 374-G:2, inserting the definition of "energy storage system." The section also makes clear that energy storage shall not be considered electric generation.

- Section 6 allows an electric public utility to seek rate recovery of their investments in distributed energy resources (DERs) are found to be in the public interest by the Public Utilities Commission (PUC).
- Section 7 compels the PUC to adopt rules allowing the use of energy storage systems by utility customers and lists out several principles for that rulemaking. This section will not impact the principles of net metering or any existing electrical permit requirements.
- SB 204 as introduced also allows municipalities to use energy storage systems.
- Introduced amendment 2019-0743s that clarified some concerns expressed before the hearing.

Clifton Below
City Councilor, City of Lebanon
- Supportive of sections 8-11, which create a local option for property tax exemption of electric energy storage systems. Batteries are capital intensive and are expensive.
- While appreciative of Senator Watters's intent, Councilor Below echoed the concerns of Mr. Kreis. Amendment 2019-0743s goes a long way to address that.
- Other New England states are being more proactive in reducing their peak demand, lessening their transmission costs. NH will bear a higher share of those costs.

Howell Montgomery
Manager of Government Affairs, Liberty Utilities (LU)
- LU currently has a battery storage pilot program that has been approved by the PUC.
    - A successful pilot could illustrate the ability to lower peak demand and lessen the need for distribution infrastructure.
- RSA 374-G allows for utility investment in DERs. SB 204 is a honing of that. LU does not seek to establish policies that are in conflict with restructuring. LU does not intend to arbitrage on battery storage. This is about serving LU's customers and lessening distribution infrastructure. Anything done by LU is going to have to be reviewed before the PUC.
- Senator Bradley asked where in SB 204 it prevents arbitrage.
    - Mr. Montgomery said the restructuring statute prevents it. LU could not build a battery storage system with the intent of storing energy and later selling that stored energy for a profit onto the grid. That is contrary to restructuring.
- Senator Bradley understood Mr. Montgomery, but asked why such a provision preventing arbitrage was not in SB 204. He asked why the bill did not, at the very least, reference the restructuring statute.
    - Mr. Montgomery said he would need to speak to LU staff and explore any language offered by Senator Bradley, but reiterated that LU is not looking for any authorization to engage in arbitrage.
- Senator Bradley and Senator Fuller Clark agreed that such language preventing arbitrage would address the concerns expressed by Mr. Kreis.
    - Senator Watters said he would talk with Mr. Montgomery.

Erle Pierce
Government Relations Advisor, Sheehan-Phinney Capitol Group, representing Unitil
- Supportive of amendment 2019-0743s.
- The definition of "energy storage system" helps clarify what the technology is and how it can be deployed in the distribution system.

Summary of testimony presented in opposition:

John Flumerfelt
Director of Government & Regulatory Affairs, Calpine Corporation
- Reiterated comments made by Mr. Ruderman, Mr. Kreis, Mr. Rauscher, and Mr. Collins.
- Opposed to utility ownership of energy storage. Additional risk is placed on ratepayers.
- The solar market is thriving across the country - DERs should be treated in a similar fashion with the private market leading the way in its development and deployment.

Neutral Information Presented:

Don Maurice Kreis
Consumer Advocate, Office of Consumer Advocate

- SB 204 as introduced walks back the principles of restructuring by allowing electric distribution utilities to invest energy storage systems.
- Liberty Utilities currently has a pilot program approved by the PUC to use Tesla battery storage on a few hundred customer locations. However, SB 204 eliminates the requirement that DERs be renewable or small scale.
- Encouraged the committee to ask bill proponents why electric distribution utility investment is necessary to get batteries built. SB 204 conflicts with the "used and useful" principle - that is, energy assets must be physically used and useful to current ratepayers before those ratepayers can be asked to pay the costs associated with them. Batteries and other DERs are not used and useful in the distribution of electricity.
- Senator Watters said Mr. Kreis had a concern with Section 5 of SB 204 as introduced. Amendment 2019-0743s clarifies Section 5 by reinstating a provision in current statute that prohibited an electric distribution utility from adding any additional non-renewable generation.

Pentti Aalto
PJA Energy System Design

- The installation and use of DERs is not a natural monopoly - it should be done by anyone at any scale. Allowing an electric distribution utility to take part in DERs is not something that should be done lightly. Electric distribution utilities can recover the costs of a bad investment from ratepayers. Customers, if they install a DER on their own, assume all the risk and have no means to recover costs. There should be a way to establish the value of DERs, not just have the utilities enter the business.

Jack Ruderman - provided written testimony
Director of Community Solar Initiatives, ReVision Energy

- Storage technology has the potential to modernize the power grid, increase system reliability and resilience, drive down peak demand, reduce harmful air emissions, and create cost savings for NH ratepayers.
- SB 204 as introduced will allow utilities to make large rate-based investments in storage. Any potential investment loss would be shifted to NH ratepayers, possibly even stranded costs.
- Harnessing competitive market forces is the best path forward to bring about the widespread deployment of storage. Rather than invest directly, electric distribution utilities should procure services from private sector storage providers, much like in Liberty Utilities's pilot program.
- There is no evidence that market forces have failed to provide these investments to ratepayers, or will fail to do so in the future. The major obstacles to growth right now are system costs and lack of time of use rates. It will take time for costs to come down and the pilot program will provide more information on time of use rates.
- Senator Watters clarified that amendment 2019-0743s removes SB 204's changes to public utility investment in distributed energy resources and returns it to current law.
- Senator Fuller Clark asked Mr. Ruderman if amendment 2019-0743s addressed his concerns or if SB 204's policy changes are premature.
    - Mr. Ruderman said he would get back to the committee with an answer.

Brianna Brand - provided written testimony
Senior Program Director, Clean Energy NH

- Support the clarification in Section 3 that energy storage does not count as generation.
- Oppose Section 5's removal of the requirement that would have ensured most distributed generation owned by utilities be from renewable resources in RSA 374-G:4.
- Concerned with the increase in the amount of generation capacity owned by the utilities in Section 5 from six percent to fifteen percent.

- The definition of "energy storage system" should not specify "customer sited."
- The change in definition of "distributed energy resources" is narrow and removed important types of DERs such as demand response.
- SB 204 does not promote or encourage non-utility owned energy storage.

Chris Skoglund - provided written testimony
Climate and Energy Program Manager, New Hampshire Department of Environmental Services (NHDES)

- Energy storage can support the development of a grid that is cleaner, more decentralized, resilient, and open for rapid innovation by absorbing energy when it is cheap and plentiful. This stored energy can be dispatched when necessary.
- The resulting economic and environmental benefits will grow as storage capacity expands and enables peak load reductions. This lowers the state's share of transmissions costs and associated generation emissions.
- Storage can also increase the resilience to grid disruption by reducing the time and resources needed to restore power to critical facilities.

Chris Rauscher - provided written testimony
Director, Policy & Storage Market Strategy, Sunrun, Inc.

- Reiterated comments made by Mr. Kreis.
    - Electric distribution utilities are poorly positioned to own energy storage at this time. They could produce stranded costs due to underperforming or costly deployment.
    - The private market is more properly incentivized to deploy solar.
    - Rather than owning storage, electric distribution utilities should be encouraged to procure services from storage. This shifts the risk of financing and nonperformance from the ratepayer to the private sector.
    - Allowing electric distribution utilities to own energy storage could allow them to own capacity, which would run counter to the goals of restructuring.
- Senator Fuller Clark asked Mr. Rauscher if he could provide examples of how the issue of battery storage is being handled elsewhere in the country.
    - Mr. Rauscher said he could look into that.

Dan Collins - provided written testimony
Director of Government Affairs, New England Power Generators Association (NEPGA)

- Reiterated comments made by Mr. Kreis, Mr. Ruderman, and Mr. Rauscher.
- It is important to protect the region's wholesale electricity markets and that private actors play the leading role in the development and deployments of DERs.

David Shulock & Tom Frantz
General Counsel, New Hampshire Public Utilities Commission (PUC)
Director, Electric Division, New Hampshire Public Utilities Commission (PUC)

- Amendment 2019-0743s addresses many the PUC's concerns with SB 204 as introduced.
- Suggested the word "unduly" be inserted in Section 7 (page 4, line 17) between "without" and "discriminatory."

GJR.
Date Hearing Report completed: March 5, 2019.

Speakers

Senate Energy & Natural Resources Committee
SIGN-IN SHEET

Date: Tuesday, March 5th, 2019 **Time:** 10:00 a.m.

SB 204 AN ACT relative to distributed energy resources and consumer energy storage.

Daniel Shulock + Tom Frantz (PUC)

Name/Representing *(please print neatly)*

Name/Representing	Support	Oppose	Speaking?	Yes	No
Sen. David Watters SD#4	☑	☐		☑	☐
Don Kreis, Consumer Advocate	☐	☐		☒	☐
Penny Hald Self	☐	☐		☒	☐
Susan Covert Self	☑	☐		☐	☑
Jack Ruderman Revision Energy	☐	☐		☑	☐
Brianna Brand Clean Energy NH	☐	☐		☑	☐
Chris Skoglund	☐	☐		☑	☐
Clifton Below City of Lebanon	☑	☐		☑	☐
Hack Montgomery Liberty Utilities	☒	☐		☒	☐
Donna Gamache Eversource	☑	☐		☐	☑
Ellen Hawes Acadia Center	☐	☐		☑	☐
Liz Arnold Platt Concord Self	☑	☐		☐	☑
Cheri Falk Wilton Self	☑	☐		☐	☑
Louise Spencer Self	☑	☐		☐	☑
Deborah Jakubowski	☑	☐		☐	☑
Gale Taylor Self	☑	☐		☐	☐
Melissa Birchard Conservation Law Fndtn	☐	☐		☐	☐
Dennis Jakubowski	☑	☐		☐	☑
Erik Pierce	☑	☐		☑	☐
Chris Rauscher	☐	☐		☒	☐
DAN COLLINS NEPGA				☒	
John Formfill Granite Bridge					

Senate Energy & Natural Resources Committee
SIGN-IN SHEET

Date: Tuesday, March 5th, 2019 **Time:** 10:00 a.m.

SB 204 AN ACT relative to distributed energy resources and consumer energy storage.

Name/Representing ***(please print neatly)***

Name/Representing	Support	Oppose	Speaking?	Yes	No
Sen. Jon Morgan / SD 23	☒	☐	Speaking?	☐	☐
Ruth M. Heath self	☒	☐	Speaking?	☐	☒
John Flumerfelt / Calpine	☐	☑	Speaking?	☑	☐
Catherine Corkery NH Sierra Club	☒	☐	Speaking?	☐	☒
Maura Willing	☑	☐	Speaking?	☐	☑
	☐	☐	Speaking?	☐	☐
	☐	☐	Speaking?	☐	☐
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	☐	☐	Speaking?	☐	☐

Testimony

GOOD MORNING. MY NAME IS JACK RUDERMAN AND I'M HERE TODAY REPRESENTING REVISION ENERGY. WE ARE THE STATE'S LARGEST SOLAR DESIGN, INSTALLATION AND MAINTENANCE COMPANY, WITH MORE THAN 70 EMPLOYEES IN NEW HAMPSHIRE. IN ADDITION TO SOLAR POWER SYSTEMS, WE ALSO OFFER A RANGE OF COMPLEMENTARY CLEAN ENERGY TECHNOLOGIES INCLUDING HIGH EFFICIENCY HEAT PUMPS, LED LIGHTING, ELECTRIC VEHICLE CHARGING STATIONS, AND BATTERY STORAGE.

WE WERE AN ACTIVE PARTICIPANT IN THE RECENT PUC DOCKET APPROVING LIBERTY UTILITIES' PILOT PROGRAM FOR RESIDENTIAL BATTERY STORAGE, AND WE BELIEVE THAT STORAGE TECHNOLOGY HAS THE POTENTIAL TO HELP MODERNIZE THE POWER GRID, INCREASE SYSTEM RELIABILITY AND RESILIENCE, DRIVE DOWN PEAK DEMAND, REDUCE HARMFUL AIR EMISSIONS AND CREATE SUBSTANTIAL COST SAVINGS FOR NEW HAMPSHIRE RATEPAYERS.

WHILE WE HAVE EMBRACED THE OPPORTUNITY TO WORK COLLABORATIVEY WITH LIBERTY UTILITIES ON THE RESIDENTIAL PILOT PROGRAM, WE DO WANT TO HIGHLIGHT FOR THE COMMITTEE THAT THIS BILL APPEARS TO HAVE THE POTENTIAL TO ALLOW UTILITIES TO MAKE LARGE RATE-BASED INVESTMENTS IN STORAGE. THIS WOULD BE A SIGNIFICANT DEPARTURE FROM THE UTILITY RESTRUCTURING PRINCIPLES THAT HAVE BEEN IN PLACE IN NEW HAMPSHIRE FOR THE PAST TWO DECADES. WE THINK THE STATE SHOULD BE VERY CAUTIOUS ABOUT MOVING IN THIS DIRECTION, AS THE RISKS OF UNECONOMIC INVESTMENT IN STORAGE TECHNOLOGIES WOULD BE SHIFTED BACK TO THE STATE'S RATEPAYERS. IN A WORST-CASE SCENARIO, SUCH INVESTMENTS BY THE REGULATED UTILITIES COULD RESULT IN STRANDED COSTS.

IN GENERAL, WE BELIEVE THAT HARNESSING COMPETITIVE MARKET FORCES TO BRING ABOUT WIDESPREAD DEPLOYMENT OF STORAGE

TECHNOLOGIES IS THE BETTER APPROACH. RATHER THAN INVEST DIRECTLY IN THIS MARKET, UTILITIES SHOULD BE ENCOURAGED TO PROCURE SERVICES FROM PRIVATE SECTOR STORAGE PROVIDERS. BY THIS WE MEAN PROGRAMS SUCH AS PHASE 2 OF THE LIBERTY PILOT, IN WHICH RATEPAYERS THEMSELVES INVEST DIRECTLY IN STORAGE DEVICES THAT CAN BE AGGREGATED BY AN INSTALLER WHO IN TURN ENTERS INTO A CONTRACT WITH A DISTRIBUTION UTILITY TO PROVIDE STORAGE SERVICES DURING PERIODS OF PEAK DEMAND.

IN SHORT, IT WOULD BE PREMATURE AT THIS TIME TO AUTHORIZE UTILITY INVESTMENTS IN STORAGE TECHNOLOGIES. THERE IS NO EVIDENCE THAT MARKET FORCES HAVE FAILED TO PROVIDE THESE INVESTMENTS, OR WILL FAIL TO DO SO IN THE FUTURE.

IN FACT, AT REVISION WE ARE ALREADY SEEING STRONG DEMAND FOR STORAGE SYSTEMS. IN THE PAST YEAR ALONE WE HAVE INSTALLED MORE THAN 70 RESIDENTIAL BATTERY SYSTEMS, AND COMMERCIAL

CUSTOMERS ARE CLAMORING FOR THE TECHNOLOGY. THE MAJOR OBSTACLES TO GROWTH RIGHT NOW ARE SYSTEM COSTS AND THE LACK OF TIME OF USE RATES. THE MARKET ISN'T SENDING THE RIGHT PRICE SIGNALS. IT OUGHT TO BE CHEAPER TO CHARGE BATTERIES IN OFF-PEAK PERIODS, AND THERE SHOULD BE A RATE PREMIUM FOR POWER SUPPLIED DURING ON-PEAK PERIODS.

THE TECHNOLOGY IS STILL RELATIVELY EXPENSIVE, AND THERE ARE CURRENTLY NO INCENTIVE PROGRAMS TO TAP INTO. MOST CUSTOMERS WHO INVEST IN STORAGE ARE EARLY ADOPTERS – THEY ARE WILLING TO PAY A PREMIUM FOR A TECHNOLOGY THAT FOR NOW CAN MAINLY SERVE AS A BACKUP POWER SOURCE, BUT DOESN'T RESULT IN COST SAVINGS BECAUSE OUR DISTRIBUTION UTILITIES DON'T OFFER TIME OF USE RATES.

TIME OF USE RATES ARE A PART OF THE LIBERTY PILOT PROGRAM, WHICH IS AN ENCOURAGING DEVELOPMENT, BUT WE NEED ALL OF OUR UTILITIES TO MOVE IN THIS DIRECTION. WHEN THAT HAPPENS, DEMAND FOR STORAGE DEVICES WILL REALLY TAKE OFF. AND AS DEMAND GROWS, PRICES WILL COME DOWN, MUCH IN THE SAME WAY AS SOLAR COSTS HAVE DECLINED BY ROUGHLY 75% IN RECENT YEARS.

IN SUM, WE THINK UTILITIES HAVE AN IMPORTANT ROLE TO PLAY IN MOVING STORAGE FORWARD, BUT WE QUESTION THE NEED FOR RATE-BASED UTILITY INVESTMENTS IN THE TECHNOLOGY. STORAGE TECHNOLOGY IS RAPIDLY EVOLVING, AND WE NEED THE INNOVATION OF COMPETITIVE MARKETS TO HELP THE TECHNOLOGY MATURE AND TO MAKE IT AFFORDABLE FOR THOSE WHO NEED IT MOST – OUR RATEPAYERS. THE PRIVATE SECTOR OFFERS THE MOST EFFICIENT PATH FORWARD.

THAT CONCLUDES MY TESTIMONY, AND I WILL BE HAPPY TO TAKE ANY QUESTIONS. THANK YOU.

SH 103

CLEAN ENERGY NH
Your Voice in All Energy Matters

14 Dixon Avenue | Concord, NH 03301 | 603.226.4732 | www.cleanenergynh.org

Senate Bill 204 (Storage/DERs)

~~Madam Chair~~ Senators for the opportunity to speak

Thank you ~~Senator, and thank you members of the committee for hearing my testimony~~. My name is Brianna Brand, and I am the Senior Program Director with Clean Energy NH, the new brand of the New Hampshire Sustainable Energy Association. In general, we are very supportive of promoting renewable energy and energy storage. Specifically on this bill, we have some thoughts and concerns:

1. We support clarifying that energy storage does not count as generation for the purposes of this chapter to encourage utilities to consider making investments in energy storage in the distribution system.

2. However, we do not support removing the requirement ~~in section G:4 III~~ that would have insured most distributed generation owned by the utilities be from renewable resources. In fact, we would suggest that all new distributed generation owned by the utilities be from renewable resources.

3. We are also concerned with the increase in the amount of generation capacity the changes proposed here would allow. As proposed, this bill would also give the PUC the authority to allow additional generation owned by the utilities and to determine how the output from that generation is used by the utility beyond the uses already allowed here.

4. It is our view that the utilities should primarily invest in front of the meter energy storage in the distribution system, therefore we believe the definition of "energy storage system" should not specify "customer sited".

5. The change in definition of "distributed energy resources" is very narrow and removes important types of DERs including demand response.

6. We are also concerned by the complete re-write of section G:5 which describes the rate filing and authorization requirements.

7. This bill does not do anything to promote or encourage non-utility owned energy storage.

With that, I'll conclude and

Thank you for the opportunity to provide testimony on this bill.

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

March 5, 2019

The Honorable Martha Fuller Clark, Chair
Energy and Natural Resources Committee
State House, Room 103
Concord, New Hampshire 03301

RE: SB 204, AN ACT relative to distributed energy resources and consumer energy storage

Dear Chair Fuller Clark and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill 204. This bill amends RSA 374-G, relative to utility investment in distributed energy resources, to clarify the eligibility of energy storage to qualify as a distributed energy resource. The New Hampshire Department of Environmental Services (NHDES) offers the following information for the committee's consideration.

Historically, electricity is the only commodity produced at the same rate that it is consumed. Energy storage, inclusive of electric batteries, fuel cells, pumped hydro, compressed air, and flywheels, changes this by providing energy when needed and absorbing it when in excess. Storage can support the development of a grid that is cleaner, more decentralized, resilient, and open for rapid innovation by absorbing energy when it is cheap and plentiful.[1] This includes during those times when intermittent renewable energy resources, such as solar and wind power, are generating, as well as during overnight periods when electricity demand is lowest. This stored energy can later be dispatched as necessary, whether during a peak electricity demand event, power outage, or when renewable energy resources are not available.[2]

As storage capacity expands and enables peak load reductions, the resulting economic and environmental benefits will grow. Such peak shaving "results in savings across the entire regional energy grid for all customers by reducing the need to run older, more expensive generation facilities during peak periods, and by deferring or avoiding the need to build new generation and transmission infrastructure."[3] By using the energy from storage instead of from the transmission system, the state can reduce its coincident peak and, therefore, save on transmission costs and the associated generation emissions. This reduction in costs would benefit all customers as transmission costs are

[1] OSI (2018). New Hampshire 10-Year State Energy Strategy, NH Office of Strategic Initiativeshttps://www.nh.gov/osi/energy/programs/documents/2018-10-year-state-energy-strategy.pdf, pg. 36.

[2] Gheorghiu, I. (2019). New Hampshire Regulators Approve Utility-Owned Residential Tesla Battery Pilot, https://www.utilitydive.com/news/new-hampshire-regulators-approve-utility-owned-residential-tesla-battery-pi/546364/, (Last accessed February 11, 2019).

[3] (2018). New Hampshire 10-Year State Energy Strategy, NH Office of Strategic Initiatives, ://www.nh.gov/osi/energy/programs/documents/2018-10-year-state-energy-strategy.pdf, pg. 40.

based on a coincident peak load; meaning the state's share of load at the time of the ISO-New England peak.[4]

Storage can also increase the resilience to grid disruption by reducing the time and resources needed to restore power to critical facilities such as hospitals, shelters, and wastewater treatment facilities,[5] as well as be utilized by industrial facilities to maintain operations. Resiliency is of increasing importance as the top five most significant power outages have all occurred during the past decade. Each of these storms affected more than 230,000 customers, with outage durations that exceeded 100 hours (see attached).[6] Energy storage offers the potential to reduce extreme weather impacts on critical infrastructure and economic disruption to businesses.

Thank you again for the opportunity to comment on SB 204. If you have any questions or require further information, please contact either Chris Skoglund, Climate and Energy Program Manager, (Christopher.Skoglund@des.nh.gov, 271-7624) or Rebecca Ohler, Administrator, Technical Services Bureau (Rebecca.Ohler@des.nh.gov, 271-6749).

Sincerely,

Robert R. Scott
Commissioner

cc: Sponsors SB 204: Senators Watters, Feltes, Fuller Clark, Morgan, Hennessey; Representatives Oxenham, Somssich

[4] Liberty Utilities (2017). Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Request for Approval of Battery Storage Pilot, pg. 8, http://www.puc.state.nh.us/regulatory/docketbk/2017/17-189/initial%20filing%20-%20petition/17-189_2017-12-01_gsec_dtestimony_tebbetts.pdf

[5] NREL (2014). **Distributed Solar PV For Electricity System Resiliency**, https://www.nrel.gov/docs/fy15osti/62631.pdf, pg. 1. (Last accessed February 11, 2018).

[6] PUC (2019). **New Hampshire Historical Outages All Utilities For Wide Scale Storms**, NH PUC Safety Division, https://www.puc.nh.gov/Safety/safety-pdfs/Safety-Chart-Of-Historical-Storms.pdf, (Last Accessed February 11, 2018).

RE: S.B. 204

Chair, Members of the Committee:

Sunrun would like to commend the legislature for taking leadership and supporting innovation in one of the most exciting sectors of the energy industry – storage. As this sector and technology is rapidly changing and advancing, policymakers are wise to take a close and deliberate look.

Sunrun is the country's largest residential solar, storage, and home energy management company with operations in 23 states (including NH), D.C., and Puerto Rico. We are the leader in residential energy storage and have enabled low and moderate income families to access solar and batteries by offering third-party owned systems with little money down, with Sunrun owning, managing, and maintaining systems for our customers. Sunrun deploys home battery storage paired with solar, a smart inverter, and certain load management capabilities. We typically utilize a DC-coupled architecture for 100% solar charging of the battery, with connectivity via WiFi or cellular for remote asset monitoring and dispatch. Sunrun customers are rapidly adopting battery storage paired with solar to secure backup power and savings on their monthly electric utility bill. Our system also optimizes battery storage and solar production for based on customer preferences and opportunities for the system to provide grid services.

Sunrun is the leader in aggregation of residential solar and batteries. Sunrun's management capabilities across a fleet of 230,000+ distributed assets, both solar and solar+storage, enable aggregation of individual sites for optimized dispatch for both customer and grid value. We are able to connect thousands of home solar and battery systems via software and utilize that resource – a "Virtual Power Plant" – to provide value to utilities and grid operators. We do this while always reserving a sufficient state of charge for our homes to have backup power when the grid goes down. In a historic breakthrough last month, Sunrun won a bid to deliver 20 MW of capacity from home solar and batteries to the ISO New England forward capacity market.

Many states are working on enabling faster storage deployment due to the ability of storage to economically provide many functions on the electricity system including peak reduction, capacity, generation, frequency regulation, improved resiliency, and more. While storage is an exciting technology, it is quickly evolving and policy should be deliberately crafted with this in mind.

As a restructured jurisdiction, New Hampshire must continue to support the participation of competitive suppliers and developers in the marketplace so that consumers are empowered to choose the energy services most affordable for them and their families. Upholding principles of competition not only drives down costs but is critical for the state's goals of greater diversity, economic development and community revitalization. Competition enables market players from

under-served and underrepresented communities to contribute to our modernizing grid as entrepreneurs and owners of DER.

Due to energy storage's innovative and nascent status, utilities are poorly positioned to own it at this time – particularly behind the customer meter. Utility ownership could produce significant stranded costs because utilities are not positioned to maximize the functions and value storage can provide, potentially resulting in underperforming, and costly, deployment. Utilities are also likely to struggle with staying current with the latest technologies and applications.

On the other hand, because of competition and the drive to reduce costs, the private sector is more properly incentivized to stack as much value into the storage use case as possible. For example, in California, Sunrun uses solar and storage to manage residential customer time-of-use rates, participate in demand response, and, in some cases, offer local distribution benefits, all while reserving backup power for customers during grid outages. This "stacked value" model enables Sunrun and other installers to reduce customer costs and lower grid costs for everyone.

Rather than allowing utilities to own storage, utilities should be incentivized to procure services from storage. This shifts the risk of financing and nonperformance from the ratepayer to the private sector. One simple and achievable way to do this is through a "Bring Your Own Device" program (or BYOD program). BYOD programs are a simple mechanism to pay storage owners when they perform peak-reduction services. This pay-for-performance model puts the risk on private developers and storage owners, not ratepayers. Sunrun is very supportive of a statewide BYOD program in New Hampshire and was pleased to see the Liberty pilot include a BYOD.

Most utilities around the country are not pursuing ownership over customer-sited storage, nor are policymakers allowing it. New Hampshire should be cautious about deviating from this trend.

Additionally, New Hampshire should safeguard against allowing utilities to participate in the wholesale markets using attributes from energy storage, such as capacity. This would run counter to the goals of restructuring and allow monopoly market power to skew the free markets. Competitive companies, as shown by Sunrun's ISO-NE contract, are more than capable of maximizing the benefits of storage in the wholesale markets - without putting the ratebase at risk.

Storage is a relatively new and evolving technology and, as such, some of the basic fundamentals may require updating: metering, interconnection standards, permitting, taxation, etc. We would encourage the committee to take a look at streamlining and refreshing these fundamentals in order to encourage a robust storage marketplace in New Hampshire.

We thank the committee for hearing this testimony and look forward to the work session.

Thank you,

Chris J. Rauscher
Director, Policy & Storage Market Strategy
Sunrun, Inc.

Roberge, Griffin

From: Jack Ruderman <jack@revisionenergy.com>
Sent: Monday, March 11, 2019 7:23 PM
To: FullerClark, Martha; Feltes, Dan; Watters, David; Giuda, Bob; Bradley, Jeb; Roberge, Griffin
Subject: Proposed Amendment to SB 204
Attachments: Proposed Amendment to SB 204.pdf

Dear Madam Chair and members of the committee:

Sunrun and ReVision were pleased to testify on SB 204 and to review the proposed amendment. After review and discussion, we offer some changes that can help improve SB 204 and move competitive companies toward support of the bill. The attached amendments to SB 204 seek to further encourage the development of competitive energy storage markets in New Hampshire in order to help reduce costs for all ratepayers and make the electricity system more resilient, while lowering the risk to the ratebase of potential stranded costs that can occur with utility ownership of storage. The amendment clarifies the circumstances under which a public utility may own or invest in energy storage and distributed energy resources, and directs the commission to institute a proceeding to establish a "bring-your-own-device" program for each public utility for behind-the-meter energy storage systems to provide electricity system services, such as peak reduction and avoided transmission and distribution costs.

Thank you for your time and consideration.

Respectfully submitted,

Jack Ruderman, ReVision Energy
Christopher Rauscher, Sunrun

REVISION ENERGY

Jack Ruderman | Employee-Owner | Director of Community Solar Initiatives
ReVision Energy, a Certified B Corp

603.731.2446 (cell)

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STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Nineteen

AN ACT relative to distributed energy resources and consumer energy storage.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Chapter Title. Amend the chapter title of RSA 374-G to read as follows:

CHAPTER 374-G
~~[ELECTRIC UTILITY INVESTMENT IN]~~
DISTRIBUTED ENERGY RESOURCES

2 Distributed Energy Resources; Purpose. Amend RSA 374-G:1 to read as follows:

374-G:1 Purpose. [~~Distributed energy resources can increase overall energy efficiency and provide energy security and diversity by eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1.~~] It is [~~therefore~~] in the public interest to stimulate investment in distributed energy resources in New Hampshire in diverse ways, including by encouraging New Hampshire electric public utilities to ~~invest in~~ ***integrate*** renewable and clean distributed energy resources at the lowest reasonable cost to taxpayers benefiting the transmission and distribution system under state regulatory oversight. ***This section shall be interpreted to encourage market-based development of battery storage.***

3 Definition; Distributed Energy Resources. Amend RSA 374-G:2 to read as follows:
374-G:2 Definitions; Exclusions.

I. The following definitions shall apply in this chapter except as otherwise provided:

(a) "Aggregator" means a non-utility that coordinates the operation and dispatch of distributed energy resources, including energy storage systems, pursuant to a program or tariff offered by a utility.

(b) "Behind-the-meter storage" means an energy storage system that is installed on a retail electricity customer's premises and is electrically connected to the customer's side of the electric utility meter.

(c) "Behind-the-meter distributed energy resource" means a distributed energy resource that is installed on a retail electricity customer's premises and is electrically connected to the customer's side of the electric utility meter.

(d) "Bring your own device" means a program for non-utility owned, and especially retail-customer owned, behind-the-meter energy storage to provide electricity system

services, such as peak reduction and avoided transmission and distribution costs. Such a program shall compensate participating behind-the-meter energy storage for the value it provides to the electricity system.

~~(a)~~ *(e)* "Commission" means the public utilities commission.

~~(b)~~ *(f)* "Distributed energy resources" means [~~electric generation equipment, including clean and renewable generation, energy storage, energy efficiency, demand response, load reduction or control programs, and~~] technologies or devices, ***including but not limited to energy storage and/or electric generation equipment, including clean and renewable generation,*** located on or interconnected to the local electric distribution system for purposes including but not limited to reducing line losses, supporting voltage regulation, or peak load shaving, as part of a strategy for minimizing ***energy,*** transmission, and distribution costs [~~as provided in RSA 374-F:3, III~~].

(g) "Energy storage system" means any commercially available, customer-sited system, including batteries and the batteries paired with on-site generation, that is capable of retaining, storing, and delivering energy by chemical, thermal, mechanical, or other means.

(h) "Front-of-the-meter storage" means any energy storage that is not behind-the-meter storage.

(i) "Non-utility" means any entity that is not a utility that develops, builds, owns, operates, or assists in the operation of one or more distributed energy resources, including retail customers that buy behind-the-meter distributed energy resources installed on their property.

II. "Distributed energy resources" in this chapter shall exclude electric generation equipment interconnected with the local electric distribution system at a single point or through a customer's own electrical wiring that is in excess of 5 megawatts.

III. For the purposes of this chapter, energy storage shall not be considered to be electric generation.

4 Electric Generation Equipment Funded by Public Utility. Amend RSA 374-G:3 to read as follows:

374-G:3 Electric Generation Equipment Funded by Public Utility; Requirements. Any electric generation equipment funded in part by a public utility under this chapter is subject to the following requirements:

I. The energy produced by electric generation equipment owned by the public utility shall be used as an offset to distribution system losses or the public utility company's own use***, or in another manner approved by the commission that reduces the energy costs***;

[~~II. The energy produced by electric generation equipment utilizing a non-renewable fuel source that is owned by a customer, or sited on a customer's property shall be used to displace the customer's own use;~~

~~III. The energy produced by electric generation equipment utilizing a renewable fuel source that is owned by a customer, or sited on the consumer's premises shall be used to displace the customers own use; however, if energy is occasionally generated in excess of the customer's energy requirements, it may be credited to the customer's account in a subsequent period.~~

~~IV.~~] ***II.*** Any biomass-fueled generation shall meet the emission requirements to qualify as eligible biomass technology under RSA 362-F:2, VIII.

[~~V.~~] ***III.*** Any fossil-fuel fueled generation shall produce combined heat and power with a minimum energy efficiency of 60 percent, measured as usable thermal and electrical output in BTUs divided by fuel input in BTUs, shall be installed as an integrated combined heat and power application, and shall meet the following emission standards (in lbs/MW-H): NOx-0.07; CO-0.10; VOCs-0.02. A credit to meet the emission standard may be applied at the rate of one MW-H for each 3.4 million BTUs of heat recovered.

[~~VI.~~] ***IV.*** These requirements apply in addition to and do not preempt or replace any emission standards or permitting requirements applicable to a given generation facility under any other applicable state or federal law.

5 Investments in Distributed Energy Resources. Amend RSA 374-G:4 to read as follows:

374-G:4 Investments in Distributed Energy Resources.

I. Notwithstanding any other provision of law to the contrary, as provided in RSA 374-G:5, a New Hampshire electric public utility may invest in or own distributed energy resources, located on or inter-connected to the local electric distribution system, ***provided however that a public utility may not invest in or own behind the meter distributed energy resources.***

II. Distributed electric generation owned by or receiving investments from an electric utility under this section shall be limited to a cumulative maximum in megawatts of [6] percent of the utility's total distribution peak load in megawatts.

[~~III. In addition, once the cumulative generation authorized under this chapter for a given public utility reaches 3 percent of the utility's total distribution peak load in megawatts, then that utility shall not be allowed to add any additional non-renewable generation under this chapter, until the cumulative renewable generation installed pursuant to this chapter, as a percentage of total generation installed pursuant to this chapter, shall equal~~

~~or exceed twice the sum of the then-applicable percentage requirements for class I and class II under RSA 362-F:3.~~]

6 Rate Filing; Authorization. RSA 374-G:5 is repealed and reenacted to read as follows:
374-G:5 Rate Filing; Authorization.

I. A New Hampshire electric public utility may seek rate recovery for its portion of investments in distributed energy resources from the commission by making an appropriate rate filing demonstrating that the investments are in the public interest. Such filing shall include information demonstrating the public utility's evaluation of:
(a) The economic and environmental impacts of the proposed investment.
(b) The costs, benefits, and rate implications to the participating customers, to the company's default service customers, and to the utility's distribution customers.
(c) The steps taken to reasonably minimize the costs of the project to its customers.
(d) The proposed form of recovery for the investments.
(e) Non-utility distributed energy resource providers' ability to provide the same or substantially similar services to be provided by the public utility's investment in distributed energy resources.

II. The commission shall authorize the public utility's recovery of investments made in distributed energy resources, if it finds that such recovery is in the public interest. Determination of the public interest under this section shall include the following factors:
(a) The effect on the reliability, safety, and efficiency of electric service.
(b) The costs and benefits to the utility's customers, including but not limited to a demonstration that the company has reasonably minimized the costs of the project to ratepayers.
(c) Whether the expected value of the economic benefits of the investment to the utility's ratepayers over the life of the investment outweigh the economic costs to the utility's ratepayers.
(d) The effect on competition within the region's electricity markets and the state's energy services market.
(e) The costs and benefits to any participating customer or customers, with ratepayer savings to all customer classes, particularly low-income customers.

The commission shall not authorize a public utility to recover investments in distributed energy resources unless the commission makes a determination that utility provided non-utility market participants a meaningful opportunity to develop and own behind-the-meter and front-of-the-meter distributed energy resources, including energy storage systems, to meet the generation, distribution or transmission system needs proposed to be met through such public utility's investment in distributed energy resources. The commission shall consider a performance incentive for the utility procurement of energy storage services.

III. Authorized and prudently incurred investments shall be recovered under this section in a utility's base distribution rates as a component of rate base, and cost recovery shall

include the recovery of depreciation, a return on investment, taxes, and other operating and maintenance expenses directly associated with the investment, net of any offsetting revenues received by the utility directly attributable to the investment. The utility may recover all reasonable costs associated with the filing, whether or not the application is approved by the commission.

IV. The commission may add an incentive to the return on equity component as it deems appropriate to encourage public utility investments in distributed energy resources.

V. The commission shall approve, disapprove, or approve with conditions a utility rate filing under this section within 90 days of its filing. The commission may extend this deadline to 6 months at its discretion for any filing involving an investment in excess of $1,000,000. The commission may also extend the deadline at its discretion for failure of the applicant to respond to data requests on an expedited timeline, but in no event shall such deadline exceed 12 months from the date of filing.

7 New Section; Customer Energy Storage Systems. Amend RSA 374-G by inserting after section 7 the following new section:

374-G:8 Customer Energy Storage Systems.

I. The commission shall adopt rules allowing the installation, interconnection, and use of energy storage systems by customers of utilities, the commission shall incorporate the following principles into the rules:
(a) It is in the public interest to limit barriers to the installation, interconnection, and use of customer-sited energy storage systems in New Hampshire;
(b) New Hampshire's consumers of electricity have a right to install, interconnect, and use energy storage systems on their property in a timely manner without the burden of unnecessary restrictions or regulations and without discriminatory rates or fees, including rates, fees or charges that are different than the fees and charges assessed to customers of the same rate class;
(c) Utility approval processes and any required interconnection reviews of energy storage systems shall be simple, streamlined, and affordable for customers; and
(d) Utilities shall not require the installation of customer-sited meters in addition to a single net energy meter for the purposes of monitoring energy storage systems; except that the commission may authorize the requirement of metering for certain large energy storage systems, as determined by the commission.
(e) Utilities shall provide customer access to distributed energy resources and energy storage system data, including the option to utilize inverter data through an API or other applicable protocols to, without limitation, track and monitor production from distributed energy resources; track and monitor charge, discharge, and cycling compliance of energy storage systems; and such other tracking or monitoring that may be required by the commission.

II. Within 30 days of the effective date of this Act, the commission shall initiate a proceeding to develop a bring-your-own-device program for implementation by public

utilities for peak reduction and distribution and transmission cost-savings. As part of this program, the commission shall include provisions for aggregator participation and shall create special tariffs or other mechanisms, including payments for peak reduction, and ensure utilities provide fair compensation to participants for their peak reduction value, as well as the value of all transmission or distribution costs the utility will avoid because of such program.

III. Nothing in this section alters or supersedes either:
(a) The principles of net energy metering under RSA 362-A:9; or
(b) Any existing electrical permit requirements or any licensing or certification requirements for installers, manufacturers, or equipment.

8 Procedure for Adoption of Property Tax Exemption. Amend the introductory paragraph of RSA 72:27-a, I, to read as follows.

I. Any town or city may adopt the provisions of RSA 72:28, RSA 72:28-b, RSA 72:29-a, RSA 72:35, RSA 72:37, RSA 72:37-b, RSA 72:38-b, RSA 72:39-a, RSA 72:62, RSA 72:66, RSA 72:70, RSA 72:76, [~~or~~] RSA 72:82, ***or RSA 72:85*** in the following manner:

9 New Subdivision; Electric Energy Storage Systems Exemption. Amend RSA 72 by inserting after section 83 the following new subdivision:

Electric Energy Storage Systems Exemption

72:84 Definition of Electric Energy Storage System. In this subdivision "electric energy storage system" means a facility located behind a retail meter that stores electrical energy that is otherwise produced by an electricity generator or uses electricity to concentrate and store thermal energy, by electrical, chemical, mechanical, or thermal means, for discharge or use at a later time, whether in the form of thermal energy to meet space or process heating or cooling loads or electricity, which can be used to reduce peak loads, compensate for variability in renewable energy production, or provide other grid services, and which does not participate in any wholesale energy markets administered by ISO New England as a registered asset or otherwise. An electric energy storage system shall not include conventional electric resistance or gas domestic hot water heaters.

72:85 Exemption for Electric Energy Storage Systems. Each city and town may adopt under RSA 72:27-a an exemption from the assessed value, for property tax purposes, for persons owning real property which is equipped with an electrical energy storage system.

72:86 Application for Exemption. Applications for exemptions under RSA 72:85 shall be governed by the provisions of RSA 72:33, RSA 72:34, and RSA 72:34-a.

10 Department of Revenue Administration; Equalization; Reference Added. Amend RSA 21-J:3, XIII to read as follows:

XIII. Equalize annually by May 1 the valuation of the property as assessed in the several towns, cities, and unincorporated places in the state including the value of property exempt pursuant to RSA 72:37, 72:37-b, 72:39-a, 72:62, 72:66, [~~and~~] 72:70, ***and 72:85***, property which is subject to tax relief under RSA 79-E:4, and property which is subject to tax relief under RSA 79-E:4-a, by adding to or deducting from the aggregate valuation of the property in towns, cities, and unincorporated places such sums as will bring such valuations to the true and market value of the property, and by making such adjustments in the value of other property from which the towns, cities, and unincorporated places receive taxes or payments in lieu of taxes, including renewable generation facility property subject to a payment in lieu of taxes agreement under RSA 72:74, as may be equitable and just, so that any public taxes that may be apportioned among them shall be equal and just. In carrying out the duty to equalize the valuation of property, the commissioner shall follow the procedures set forth in RSA 21-J:9-a.

11 Department of Revenue Administration; Rules; Reference Added. Amend RSA 72:36, I to read as follows:

I. The commissioner's interpretation of RSA 72:28, 72:28-b, 72:28-c, 72:29, 72:29-a, 72:30, 72:31, 72:32, 72:33, 72:34, 72:34-a, 72:35, 72:36-a, 72:37, 72:37-a, 72:37-b, 72:38-a, 72:38-b, 72:39-a, 72:39-b, 72:41, 72:62, 72:66, [~~and~~] 72:70, ***and 72:85***; and

12 Repeal. RSA 374-G:7, relative to an exclusion for renewable generating equipment, is repealed.

13 Effective Date. This act shall take effect 60 days after its passage.

NEPGA
NEW ENGLAND POWER GENERATORS ASSOCIATION, INC.

33 Broad St, 7th Floor, Boston, MA 02109
(t) 617-902-2354 (f) 617-902-2349
www.nepga.org

New Hampshire Senate
Energy and Natural Resources Committee

Testimony on

Senate Bill 204, An Act Relative to Distributed Energy Resources and Consumer Energy Storage

The New England Power Generators Association (NEPGA)[1] appreciates the opportunity to provide testimony on Senate Bill 204, *An Act Relative to Distributed Energy Resources and Consumer Energy Storage* (SB 204). NEPGA is concerned that SB 204 would allow utilities to own energy storage and clean and renewable energy resources for virtually any purpose and in potentially unlimited amounts, which would expose New Hampshire consumers to the risks of bad investments and costs overruns. Instead, NEPGA urges the Committee to allow third parties in the competitive marketplace to make these investments to help New Hampshire meet its policy goals in a more efficient manner.

NEPGA is the trade association representing competitive electric generating companies in New England. Its members own and operate a complex and diverse mix of resources that provide various reliability services in a competitive/cost effective manner. NEPGA's member companies represent approximately 25,000 megawatts (MW) – or approximately 90% of all generating capacity throughout New England, and over 4,153 MW of generation in New Hampshire, or 95% of the electric generating capacity in the state. NEPGA's New Hampshire companies pay tens of millions of dollars annually in state and local taxes, provide roughly 1,000 well-paying and skilled New Hampshire jobs, invest millions of dollars annually to maintain and improve equipment performance and make major contributions to charitable endeavors throughout the state.

NEPGA supports the development and deployment of innovative energy resources, including storage technology. Open, competitive electricity markets offer the best way to innovate, attract investment, lower barriers for all eligible participants and yield the most efficient outcome for consumers. In fact, the wholesale electricity markets are in the midst of a substantial evolution to integrate and appropriately compensate faster, more flexible resources that are valued for their unique services. ISO New England (ISO-NE), the region's grid operator, estimates that more than 800 MW of

[1] The comments expressed herein represent those of NEPGA as an organization, but not necessarily those of any particular member.

privately sponsored grid-scale energy storage resources have requested to interconnect to the system, which would add to the 20 MW of battery storage and more than 1,800 MW of pumped storage resources that currently participate in the competitive markets.[2]

Conversely, policies that pick winners and losers and provide recovery through consumer-guaranteed rate base stifle competitive market participation, hinder innovation and expose consumers to stranded costs. With the sale of the Public Service Company of New Hampshire fossil and hydro assets last year, New Hampshire is now able to fully capture the value of an open and competitive wholesale electricity market, where third party generators and energy storage developers, not captive ratepayers, assume the risk for any losses.

SB 204 threatens to impede this progress because it would allow utilities to own distributed energy resources "in another manner" other than to offset distribution system losses or investments in transmission and distribution infrastructure. After years of burdening ratepayers with utility stranded costs, it would be imprudent to create new risks by rate-basing investments in new generation and storage technologies. Further, SB 204 would increase the amount of utility-owned generation and storage capacity from 6% to *at least* 15% of a utility's peak load, which would effectively open the door to unlimited utility ownership of renewables and storage resources.

Instead, NEPGA urges the Committee to allow competitive wholesale markets to continue on its successful path and not undermine their benefits through utility developed and owned distributed energy resources with guaranteed cost-of-service or incentive rate recovery. Permitting utilities to own generation and energy storage resources distorts the region's competitive markets, which reduces competitive market participants' ability to recover sufficient revenues and continue to make the kinds of investments that have resulted in historically low wholesale energy prices in recent years. Further, a vibrant competitive market means that ratepayers are not expected to assume the risk of cost overruns or bad investments.

NEPGA recognizes and appreciates the role of clean and renewable resources and energy storage but thinks New England's competitive electricity markets are the appropriate means for its development and deployment, not discriminatory practices guaranteed by utility ratepayers.

NEPGA thanks the Committee for this opportunity to comment on SB 204 and stands ready to work with members on solutions for meeting consumers' electricity needs.

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[2] *ISO New England Overview*, Presentation to the House Science, Technology and Energy Committee, Eric Johnson and Kate Epsen, January 15, 2019

Voting Sheets

Senate Energy & Natural Resources Committee

EXECUTIVE SESSION RECORD

2019-2020 Session

Bill # SB 204

Hearing date: 03/05/2019

Executive Session date: 03/19/2019

Motion of: Amendment 1085s **Vote:** 5-0

Committee Member	Present	Made by	Second	Yes	No
Sen. Fuller Clark, Chair	✓	✓		✓	
Sen. Feltes, Vice Chair	✓			✓	
Sen. Watters	✓			✓	
Sen. Bradley	✓		✓	✓	
Sen. Giuda	✓			✓	

Motion of: OTPA **Vote:** 5-0

Committee Member	Present	Made by	Second	Yes	No
Sen. Fuller Clark, Chair	✓	✓		✓	
Sen. Feltes, Vice Chair	✓			✓	
Sen. Watters	✓		✓	✓	
Sen. Bradley	✓			✓	
Sen. Giuda	✓			✓	

Motion of: Consent **Vote:** 5-0

Committee Member	Present	Made by	Second	Yes	No
Sen. Fuller Clark, Chair	✓			✓	
Sen. Feltes, Vice Chair	✓			✓	
Sen. Watters	✓		✓	✓	
Sen. Bradley	✓	✓		✓	
Sen. Giuda	✓			✓	

Reported out by: Watters

Notes:

Committee Report

STATE OF NEW HAMPSHIRE

SENATE

REPORT OF THE COMMITTEE
FOR THE CONSENT CALENDAR

Tuesday, March 19, 2019

THE COMMITTEE ON Energy and Natural Resources

to which was referred **SB 204**

AN ACT relative to distributed energy resources and consumer energy storage.

Having considered the same, the committee recommends that the Bill

OUGHT TO PASS WITH AMENDMENT

BY A VOTE OF: 5-0

AMENDMENT # 1178s

Senator David Watters
For the Committee

Senate Bill 204 modifies the regulation of distributed energy resources of electric utilities, provides for electric consumer energy storage systems, and enables municipalities to adopt a property tax exemption for electric energy storage systems. The committee amendment ensures that any energy storage system funded by a public utility shall be consistent with the electric utility restructuring statute. The committee amendment reclarifies the purpose statement of RSA 374-G to encourage the market-based development of energy storage and makes clear that New Hampshire's electric consumers have the right to install energy storage systems without the burden of unnecessary restrictions or regulations.

Griffin Roberge 271-7875

FOR THE CONSENT CALENDAR

ENERGY AND NATURAL RESOURCES

SB 204, relative to distributed energy resources and consumer energy storage.
Ought to Pass with Amendment, Vote 5-0.
Senator David Watters for the committee.
Senate Bill 204 modifies the regulation of distributed energy resources of electric utilities, provides for electric consumer energy storage systems, and enables municipalities to adopt a property tax exemption for electric energy storage systems. The committee amendment ensures that any energy storage system funded by a public utility shall be consistent with the electric utility restructuring statute. The committee amendment reclarifies the purpose statement of RSA 374-G to encourage the market-based development of energy storage and makes clear that New Hampshire's electric consumers have the right to install energy storage systems without the burden of unnecessary restrictions or regulations.

General Court of New Hampshire - Bill Status System

Docket of SB204

Docket Abbreviations

Bill Title: (New Title) relative to encouraging the development of electrical energy storage by both private market participants and regulated electric utility companies.

Official Docket of **SB204.**:

Date	Body	Description
1/22/2019	S	**Introduced** 01/03/2019 and Referred to Energy and Natural Resources; **SJ 4**
2/21/2019	S	**Hearing:** 03/05/2019, Room 103, SH, 10:00 am; **SC 12**
3/21/2019	S	Committee Report: Ought to Pass with Amendment **#2019-1178s**, 03/27/2019; Vote 5-0; CC; **SC 15**
3/27/2019	S	Committee Amendment **#2019-1178s**, AA, VV; 03/27/2019; **SJ 10**
3/27/2019	S	**Ought to Pass with Amendment** 2019-1178s, MA, VV; OT3rdg; 03/27/2019; **SJ 10**
4/1/2019	H	Introduced 03/20/2019 and referred to Science, Technology and Energy **HJ 11** P. 73
4/4/2019	H	Public Hearing: 04/10/2019 02:00 pm LOB 304
4/24/2019	H	Executive Session: 04/30/2019 10:00 am LOB 304
5/1/2019	H	Committee Report: Ought to Pass with Amendment **#2019-1750h** (NT) for 05/08/2019 (Vote 18-0; RC) **HC 23** P. 11
5/8/2019	H	Amendment **#2019-1750h** (NT): AA VV 05/08/2019 **HJ 15** P. 42
5/8/2019	H	**Ought to Pass with Amendment** 2019-1750h (NT): MA **RC** 223-129 05/08/2019 **HJ 15** P. 42
5/8/2019	H	Referred to Municipal and County Government 05/08/2019 **HJ 15** P. 42
5/8/2019	H	Public Hearing: 05/16/2019 10:00 am LOB 301
5/17/2019	H	Executive Session: 05/28/2019 10:00 am LOB 301
5/29/2019	H	Majority Committee Report: Ought to Pass for 06/05/2019 (Vote 8-7; RC) **HC 27** P. 18
5/29/2019	H	Minority Committee Report: Inexpedient to Legislate
6/5/2019	H	Lay on Table (Rep. Carson): MA VV 06/05/2019 **HJ 17** P. 80

NH House	NH Senate

Other Referrals

Senate Inventory Checklist for Archives

Bill Number: SB 204 **Senate Committee:** ENR

Please include all documents in the order listed below and indicate the documents which have been included with an "X" beside

X Final docket found on Bill Status

Bill Hearing Documents: {Legislative Aides}

X Bill version as it came to the committee

X All Calendar Notices

X Hearing Sign-up sheet(s)

X Prepared testimony, presentations, & other submissions handed in at the public hearing

X Hearing Report

___ Revised/Amended Fiscal Notes provided by the Senate Clerk's Office

Committee Action Documents: {Legislative Aides}

All amendments considered in committee (including those not adopted):

X - amendment # 0743 X - amendment # 0912

X - amendment # 1085 X - amendment # 1178

X Executive Session Sheet

X Committee Report

Floor Action Documents: {Clerk's Office}

All floor amendments considered by the body during session (only if they are offered to the senate):

___ - amendment # _____ ___ - amendment # _____

___ - amendment # _____ ___ - amendment # _____

Post Floor Action: (if applicable) {Clerk's Office}

___ Committee of Conference Report (if signed off by all members. Include any new language proposed by the committee of conference):

___ Enrolled Bill Amendment(s)

___ Governor's Veto Message

All available versions of the bill: {Clerk's Office}

X as amended by the senate X as amended by the house

___ final version

Completed Committee Report File Delivered to the Senate Clerk's Office By:

_____ _____

Committee Aide **Date**

Senate Clerk's Office JM