

CHAPTER 243
SB 166-FN - FINAL VERSION

03/16/2023 0831s
4May2023... 1392h
06/29/2023 2217CofC

2023 SESSION

23-1047
10/05

SENATE BILL ***166-FN***

AN ACT relative to electric grid modernization.

SPONSORS: Sen. Watters, Dist 4; Sen. Perkins Kwoka, Dist 21; Sen. D'Allesandro, Dist 20; Sen. Fenton, Dist 10; Sen. Avar, Dist 12; Sen. Rosenwald, Dist 13; Sen. Altschiller, Dist 24; Sen. Chandley, Dist 11; Sen. Soucy, Dist 18; Rep. McWilliams, Merr. 30; Rep. McGhee, Hills. 35

COMMITTEE: Energy and Natural Resources

ANALYSIS

This bill allows the department of energy and the public utilities commission to implement the use of distributed energy resources, transactive energy, enhanced demand response, and distributed generation and storage for grid modernization for New Hampshire.

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Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

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STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty Three

AN ACT relative to electric grid modernization.

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

1 243:1 Findings. The general court finds:

2 I. Recent record increases in the cost of electricity supply have created hardships and excessive
3 burdens for many New Hampshire residents and businesses.

4 II. New Hampshire can protect against such prices spikes and achieve lower costs and greater
5 price stability for electricity while enabling greater local control, resiliency, and sustainability of our energy
6 system and local economies.

7 III. The July 2022 New Hampshire 10-Year State Energy Strategy adopted by the department of
8 energy recommends that "New Hampshire policymakers should pursue market-based mechanisms for
9 achieving cost effective energy, while avoiding preferential quotas and mandates" and that "New
10 Hampshire should seek to foster an environment where new and emerging technologies can flourish by
11 the value they may bring to the market." Among the goals of the strategy are "Goal 7: Encourage market-
12 selection of cost-effective energy resources" and "Goal 8: Generate in-state economic activity without
13 reliance on permanent long term subsidization of energy."

14 IV. Developing new cost-effective distributed energy resources (DERs), consisting of enhanced
15 demand response (DR), distributed generation and storage (DG and DS) that are connected to the
16 distribution grid that can help reduce and stabilize costs for electric ratepayers. DG and DS are those
17 facilities with less than 5 MW in rated interconnection and are not participating in ISO New England
18 interstate wholesale electricity markets.

19 V. In 1996 the general court enacted RSA 374-F restructuring the electric utility industry in New
20 Hampshire and stipulated, as part of the purpose statement, that "[i]ncreased customer choice and the
21 development of competitive markets for wholesale and retail electricity services are key elements in a
22 restructured industry" and that "[c]ompetitive markets should provide electricity suppliers with incentives to
23 operate efficiently and cleanly, open markets for new and improved technologies, provide electricity
24 buyers and sellers with appropriate price signals, and improve public confidence in the electric utility
25 industry."

26 VI. The value of distributed energy resources study recently completed for the department of
27 energy found that "The value that such DERs provide is location- and time-dependent, varying by hour,
28 season, and year."

29 VII. DERs that are able to respond to the same temporal price signals can help reduce the peaks
30 and fill the valleys of electric load.

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243:2 New Section; Department of Energy; Grid Modernization Advisory Group. Amend RSA 12-P by inserting after section 15 the following new section:

12-P:16 Grid Modernization Advisory Group.

I. The department of energy shall establish and support a grid modernization advisory group (GMAG) consisting of the following voting members:

(a) The commissioner of the department of energy, or designee.

(b) The consumer advocate, or designee.

(c) Representatives of each of the electric distribution utilities regulated by the public utilities commission and the New Hampshire Electric Cooperative.

(d) Two representatives of distributed energy providers, including at least one with experience interconnecting distributed generation and one with experience interconnecting distributed storage, appointed by the commissioner of the department of energy.

(e) A representative of a municipal aggregation supplier, appointed by the commissioner of the department of energy.

(f) A representative of a not-for-profit organization representing clean energy, environmental, or consumer issues appointed by the commissioner of the department of energy.

(g) A representative of the Business and Industry Association, appointed by that organization.

II.(a) The grid modernization advisory group shall consider and provide recommendations to the department and the legislature on issues including, but not limited to:

(1) Grid modernization as defined in RSA 374-F:2;

(2) Transactive energy and distributed energy resources including advanced meter infrastructure (AMI);

(3) Settlement of appropriate price signals for transactive energy at the distribution system level for distributed energy resources;

(4) Appropriate customer and distributed energy resources access to temporal price signals.

(b) The GMAG shall review different cost structures that enable a reasonable portion of costs of distributed generation and storage interconnections to be shared by entities that interconnect future distributed generation or storage to the distribution grid to the extent that such subsequent interconnection is enabled by the investment or costs incurred by the prior entity or entities that interconnect. The GMAG shall provide recommendations to address this issue by September 1, 2024.

(c) The department of energy may obtain the services of a consultant for technical support concerning distribution systems and transactive energy to support department of energy staff, the consumer advocate, and the GMAG. The department of energy shall charge a special assessment for any such amounts for this consultant against any utility participating in the grid modernization advisory group and the public utilities commission shall provide for the timely recovery of such amounts for the affected utility.

III. A quorum shall be a majority of filled positions.

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1 IV. The grid modernization advisory group shall report annually on November 1 on its meetings
2 and any recommendations for legislation, rules, and practices, to the governor, senate president, speaker
3 of the house of representatives, chair of the house and senate committees with jurisdiction over utilities,
4 and the chair of the public utilities commission.

5 243:3 New Paragraphs; Electric Utilities; Definitions Added. Amend RSA 374-F:2 by inserting after
6 paragraph V the following new paragraphs:

7 VI. "Demand response" means a reduction in the use of electricity by retail electricity energy
8 customers in response to power grid needs, economic signals from their electricity supplier based on
9 wholesale market prices, or time varying rates.

10 VII. "Distributed energy resources" or "DER" means demand response, distributed generation,
11 and distributed storage.

12 VIII. "Distributed generation" or "DG" means a customer-generator as defined in RSA 362-A:1-a,
13 II-b or a limited producer as defined in RSA 362-A:1-a, III, excluding qualifying storage systems and grid-
14 interactive electric vehicles.

15 IX. "Distributed storage" or "DS" means qualifying storage systems as defined in RSA 362-A:1-a,
16 IX-a, grid-integrated electric vehicles when they are interconnected to a New Hampshire jurisdictional
17 distribution grid behind a retail electric meter, or energy storage as defined in RSA 374-H:1, III, that are
18 not participating in any wholesale energy markets administered by ISO New England as a registered
19 asset or otherwise.

20 X. "Grid-integrated electric vehicle" or "GIEV" means a battery-run motor vehicle that has the
21 ability for 2-way power flow between the vehicle and the electric grid and the communications hardware
22 and software that allow for the external control of battery charging and discharging by the electric utility
23 customer, an electric distribution company, an electricity supplier, or an aggregator.

24 XI. "Grid modernization" means improvements to electric distribution or transmission
25 infrastructure, including related data analytics equipment, that are designed to accommodate or facilitate
26 the integration of renewable electric generation resources with the electric distribution grid or to otherwise
27 enhance electric distribution or transmission grid reliability, grid security, demand response capability,
28 customer service or energy efficiency, or conservation and includes:

29 (1) Advanced metering infrastructure that facilitates metering and providing related price
30 signals to users to incentivize shifting demand and support transactive energy;

31 (2) Intelligent grid devices for real time system and asset information at key substations
32 and customer locations;

33 (3) Automated control systems for electric distribution circuits and substations;

34 (4) Communications networks for service meters;

35 (5) Energy storage systems and microgrids that support circuit-level grid stability, power
36 quality, reliability or resiliency or provide temporary backup energy supply;

37 (6) Electrical facilities and infrastructure necessary to support electric vehicle charging
38 systems;

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(7) Interconnection standards and procedures for state jurisdictional DG and DS connection to the distribution grid consistent with New Hampshire's energy policy in RSA 378:37 that reasonably balances reliability and safety risks with costs and benefits; and

(8) Other new technologies that may be developed regarding the electric grid.

XII. "Transactive energy" or "TE" means a system of economic and control mechanisms that allows the dynamic balance of supply and demand across the entire electrical infrastructure using value as a key operational parameter.

243:4 Limited Electrical Energy Producers Act; Definition; Qualifying Storage System. Amend RSA 362-A:1-a, IX-a to read as follows:

IX-a. "Qualifying storage system" means an electric energy storage system as defined in RSA 72:84 ***or a grid-integrated electric vehicle as defined in RSA 374-F:2.***

243:5 Limited Electrical Energy Producers Act; Pilot Programs. Amend RSA 362-A:2-b, IV to read as follows:

IV. Pilot projects shall be subject to the following limits:

(a) Projects shall be limited to ~~[2 megawatts in size]~~ ***5 megawatts in overall size.***

(b) No more than ~~[one pilot]~~ ***2 pilots*** shall be permitted for any utility.

(c) Pilot projects shall end no later than 10 years from their initiation.

(d) Each pilot project shall deliver a study ~~[3]~~ ***2*** years after project initiation to report to the commission on the consumer benefits of the project.

(e) A utility shall not be eligible to file for approval of a second pilot at the public utilities commission until one year has passed since the filing for approval of the utility's initial pilot.

243:6 Limited Electrical Energy Producers Act; Pilot Programs; Grid Modernization. Amend RSA 362-A:2-b, VII to read as follows:

VII. Each electric distribution utility may propose and participate in ~~[a pilot]~~ ***2 pilots***, in conjunction with a competitive electric power supplier or municipal or county aggregation, pursuant to RSA 53-E, operating as or in conjunction with a load-serving entity. The commission may approve provisions to cover incremental costs of the utility related to any such approved pilot. ***The public utilities commission may approve utility participation in a pilot for transactive energy and distributed energy resources, and the associated advanced metering infrastructure, as components of grid modernization if the jurisdictional conflicts under paragraph III are successfully resolved.***

243:7 Authorization of Pilots; Credits. Amend RSA 362-A:2-b, XI(a) to read as follows:

XI.(a) The sponsors of a pilot, including the participating electric distribution utility, may petition the commission to determine, through an adjudicated proceeding, how credits for actual avoided transmission charges are to be made for exports to the distribution grid by limited producers during hours of coincident peak on which transmission costs are allocated to ~~[reduce the retail load measured at the point of interconnection between]~~ the distribution system ~~[under state jurisdiction and transmission facilities under federal jurisdiction. Said costs shall be allocated to the distribution utility as transmission network customer are reduced from what they otherwise would be absent the electricity exported to the distribution grid by the limited producer. Such credit shall be made pursuant to either subparagraph (b) or~~

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1 ~~(c) as proposed and determined by the commission to be for the public good].~~ *Such credit may be based*
2 *upon the extent to which such exports to the distribution grid reduce retail loads calculated at the point of*
3 *interconnection between the distribution system, under state jurisdiction, and transmission facilities, under*
4 *federal jurisdiction.*

5 243:8 Customer Energy Storage Systems; Tariffs. Amend the introductory paragraph of RSA 374-
6 H:2, I to read as follows:

7 I. The commission shall adopt rules *or approve tariffs* clarifying policy for the installation,
8 interconnection, and use of energy storage systems by customers of utilities, and shall incorporate the
9 following principles into the rules *or approved tariffs*.

10 243:9 Energy Policy Act Standards. Amend RSA 378:7-a, to read as follows:

11 378:7-a Energy Policy Act Standards. Consistent with their statutory authority, the commission and
12 the department of energy may establish requirements, *standards, and rate mechanisms* for net metering,
13 fuel diversity, fossil fuel generation efficiency, advanced metering, time-based rates, *demand response*
14 *practices, electric vehicle charging programs*, and interconnection with on-site generation facilities of
15 customers in a manner not inconsistent with section 111 of the Public Utility Regulatory Policies Act of
16 1978 (16 U.S.C. Chapter 46) as amended by the Energy Policy Act of 2005 *and 16 U.S.C. section 2621*
17 *(20) and (21).*

18 243:10 New Subparagraph; Office of Offshore Wind Industry Development; Report; Clean Energy
19 Resources. Amend 2022, 177:2, I by inserting after subparagraph (c) the following new subparagraph:

20 (d) Recommendations on how to find efficiencies and encourage coordination among the
21 states in the Bureau of Ocean Energy Management Gulf of Maine Task Force and other New England
22 states in the development of transmission infrastructure needed to integrate offshore wind into the
23 electrical grid in order to reduce costs.

24 243:11 Effective Date. This act shall take effect 60 days after its passage.

Approved: August 08, 2023
Effective Date: October 07, 2023

