

Amendment to HB 715-FN

1 Amend the bill by replacing all after the enacting clause with the following:

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3 1 Findings; Public Utilities; Energy Storage. Energy storage has the potential to increase the  
4 utilization of renewable energy in New Hampshire and improve the state's fuel diversity portfolio,  
5 while reducing New Hampshire families' and businesses' over dependence on natural gas and  
6 minimizing their exposure to volatile natural gas prices. Enabling greater use of renewable energy  
7 reduces air pollution, including both toxic chemicals and particulate matter, thereby lessening the  
8 electricity system's negative impacts on both public health and environmental quality. Innovative  
9 technologies like energy storage can also stimulate investment and employment in the state,  
10 thereby making a positive contribution to New Hampshire's economy. Energy storage also has the  
11 potential to significantly reduce New Hampshire's effective peak demand for electricity. Reducing  
12 peak electricity demand is in the public interest because such demand disproportionately drives  
13 New Hampshire families' and businesses' energy cost burden. Electric system reliability requires  
14 the transmission and distribution system to be built out to meet peak demand, with the result that  
15 ratepayers must often pay for system expansions and upgrades that will lie idle the vast majority of  
16 the year. Furthermore, the generation units that grid operators call on to meet peak demand are  
17 generally the most inefficient and thus the most expensive units. Such generation units also tend  
18 to be the most polluting, and thus account for a disproportionate share of the electricity system's  
19 negative public health and environmental impacts. For all these reasons, the general court finds it  
20 is in the public interest to stimulate the deployment of energy storage in New Hampshire.

21 2 New Chapter; Energy Storage. Amend RSA by inserting after chapter 374-G the following  
22 new chapter:

23

CHAPTER 374-H

24

ENERGY STORAGE

25

374-H:1 Definitions. In this chapter:

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I. "Commission" means the public utilities commission.

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

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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  
32 possible to the electricity system, particularly in terms of peak reduction and avoided transmission

**Amendment to HB 715-FN**  
**- Page 2 -**

1 and distribution costs. Such a program shall compensate participating behind-the-meter energy  
2 storage for the value it provides to the electricity system.

3 IV. "Energy storage" means batteries, flywheels, compressed air energy systems, sensible  
4 heat storage or any other technology, system, or device capable of taking electricity and storing it as  
5 some form of energy the technology, system, or device can either convert back into electricity or use  
6 to displace an electrical load at a later time. Such term shall include standalone technologies,  
7 systems, and devices, as well as those co-located with or incorporated into a renewable energy  
8 source.

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

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

13 VII. "ISO-New England" means the Independent System Operator New England or any  
14 successor entity.

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

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

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

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

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

26 XIII. "Utility" means any entity that distributes electricity to retail customers or owns part  
27 of the electrical transmission system in New Hampshire.

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

30 374-H:2 Energy Storage Targets.

31 I. The commission shall ensure sufficient energy storage capacity is deployed on the  
32 electricity system to reduce the peak demand by 2 percent when discharging coincidentally, by  
33 December 31, 2022. The commission shall measure this reduction by using the 2018 peak demand  
34 as a baseline. In order to achieve this target, the commission shall create programs and tariffs, or  
35 tariff riders, that enable energy storage to be compensated for services it provides.

36 II. Within one year of the effective date of this section, the commission shall initiate a  
37 proceeding to determine if a higher energy storage target than that established in paragraph I

**Amendment to HB 715-FN**  
**- Page 3 -**

1 would provide net benefits to ratepayers. This proceeding shall consider:

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

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

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

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

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

15 (f) The likely cost to ratepayers of a higher target.

16 (g) Any other benefit the commission deems relevant.

17 III. The commission shall complete the proceeding under paragraph II no later than  
18 December 31, 2022.

19 IV. If the commission, following the proceeding under paragraph II, finds a higher target  
20 than the one specified in paragraph I would provide net benefits to ratepayers, it shall raise the  
21 target to up to 15 percent of peak demand.

22 (a) The commission shall establish a compliance timeline for the higher target to ensure  
23 that it is reached by December 31, 2030. The compliance timeline shall also require that enough  
24 energy storage capacity to reduce peak demand by at least an additional one percent per year above  
25 the paragraph I target is built each year following December 31, 2022, until the full target is met.

26 (b) Nothing in this paragraph shall affect the compliance timeline paragraph I  
27 establishes for the initial target.

28 374-H:3 Target Implementation.

29 I. Within one month of the effective date of this section, the commission shall initiate  
30 rulemaking or proceedings relative to programs and tariffs or tariff riders, or both, that implement  
31 the provisions of this chapter. The commission shall determine the amount of megawatts of power  
32 and megawatt-hours of energy storage capacity needed to reduce peak demand by 2 percent. The  
33 commission shall complete this rulemaking or issue orders no later than one year after the effective  
34 date of this section.

35 II. Subject to paragraph V, the commission's regulations or orders shall ensure non-utilities  
36 develop and own at least 1/2 of the energy storage capacity required under RSA 374-H:2. The  
37 commission's regulations or orders shall create a preference for non-utility energy storage projects

**Amendment to HB 715-FN**  
**- Page 4 -**

1 that avoid or reduce transmission and distribution costs. Such avoided or reduced costs shall  
2 include, but are not limited to, deferring the need for new distribution and transmission  
3 infrastructure or reducing the utility's regional and local network charges.

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

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

11 V. If the commission finds that a non-utility cannot develop enough energy storage projects  
12 to meet its share of a target under RSA 374-H:2, the commission shall allow such utility to develop  
13 and own whatever additional number of energy storage projects are needed to meet such target.

14 VI. Notwithstanding any provision of RSA 374-F or RSA 374-G, the commission's  
15 regulations or orders shall require a utility to compensate a non-utility for the value of all  
16 transmission or distribution costs the utility will likely avoid because of the non-utility energy  
17 storage project.

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

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

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

30 (d) If the non-utility energy storage project avoids the need for a new distribution or  
31 transmission project the utility could have added to its rate base, the commission may allow the  
32 utility to include all or part of the value of the corresponding portion of its payment to the non-  
33 utility in its rates. However, the commission may allow this only if it finds doing so is just and  
34 reasonable.

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

**Amendment to HB 715-FN**  
**- Page 5 -**

1           (a) A utility may contractually sell the right to bid such utility-owned energy storage  
2 projects that serve a transmission or distribution purpose into wholesale electricity markets to a  
3 non-utility. Any such contract shall provide that any compensation the non-utility pays to the  
4 utility for this right shall in no way depend upon the energy storage project's performance in  
5 wholesale electricity markets, such that the non-utility bears all risk of project underperformance in  
6 the wholesale market.

7           (b) The utility shall use all compensation a non-utility pays the utility for the  
8 contractual right under subparagraph (a) to reduce transmission and distribution charges for all  
9 ratepayers.

10           (c) A utility may not give a contractual right under subparagraph (a) to a non-utility  
11 that is an affiliate of the utility.

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

15           IX. The provisions of RSA 374-H:3, VI-VIII shall remain in effect after the targets in RSA  
16 374-H:2 are met.

17           3 Effective Date. This act shall take effect 60 days after its passage.

**Amendment to HB 715-FN**  
**- Page 6 -**

2019-0742h

AMENDED ANALYSIS

This bill establishes target goals for energy storage capacity. The bill also requires the public utilities commission to adopt rules or undertake proceedings to achieve the target goals.