

**HOUSE . . . . . No. 4222**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

***Jeffrey N. Roy***

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

**An Act advancing grid enhancement technology.**

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Jeffrey N. Roy</i>	<i>10th Norfolk</i>	<i>12/8/2023</i>

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By Representative Roy of Franklin, a petition (subject to Joint Rule 12) of Jeffrey N. Roy relative to electric grid enhancement technologies. Telecommunications, Utilities and Energy.

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**The Commonwealth of Massachusetts**

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**In the One Hundred and Ninety-Third General Court  
(2023-2024)**  
\_\_\_\_\_

An Act advancing grid enhancement technology.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1           Section 164 of the General Laws, as so appearing, is hereby amended by inserting the  
2 following section:

3           Section 149. (a) Title and Purpose. This Act shall be known as the “Grid Enhancement  
4 and Technology Strategy Act.” The purpose of the Act shall be to maximize the capacity,  
5 reliability, and efficiency of the state’s transmission system by expanding the scope of applicable  
6 strategies, technologies, and deployment options used by distribution companies and the  
7 independent system operator of New England.

8           (b) Definitions.

9           “Grid Enhancing Technology”. Any hardware or software technology that enables  
10 enhanced or more efficient performance from the electric transmission system, including, but not  
11 limited to dynamic line rating, advanced power flow control technology, topology optimization,  
12 advanced reconductoring, and energy storage when used as a transmission resource.

13 “Department”. The Department of Public Utilities.

14 “Advanced Reconductors”. Hardware technology that can conduct electricity across  
15 transmission lines and demonstrate enhanced performance over traditional conductor products.

16 “Dynamic Line Rating”. Hardware and/or software technologies used to appropriately  
17 update the calculated thermal limits of existing transmission lines based on real-time and  
18 forecasted weather conditions.

19 “Advanced Power Flow Control”. Hardware and software technologies used to push or  
20 pull electric power in a manner that balances overloaded lines and underutilized corridors within  
21 the transmission network.

22 “Topology Optimization”. Any hardware or software technology that identifies  
23 reconfigurations of the transmission grid and can enable the routing of power flows around  
24 congested or overloaded transmission elements.

25 (c) Mandatory Review of GETs. For base rate proceedings and other proceedings in  
26 which a distribution company proposes capital improvements or additions to the transmission  
27 system, the distribution company shall conduct a cost-effectiveness and timetable analysis of  
28 multiple strategies including but not limited to the deployment of grid enhancing technologies,  
29 advanced reconductoring, or energy storage used as a transmission resource. Where grid  
30 enhancing technologies, advanced reconductoring, or energy storage used as a transmission  
31 resource whether in combination with or instead of capital investments, offer a more cost-  
32 effective strategy to achieving transmission goals including, but not limited to distributed energy  
33 resource interconnection, the Department may approve the deployment of grid enhancing

34 technologies, advanced reconductoring, or energy storage used as a transmission resource as part  
35 of the overall solutions strategy.

36 (d) Performance Incentive Mechanisms. As part of a base rate filing or other filing in  
37 which it proposes capital improvements or additions to the transmission system, the distribution  
38 company may propose a performance incentive mechanism that provides a financial incentive for  
39 the cost-effective deployment of grid enhancing technologies, advanced reconductoring, or  
40 energy storage used as a transmission resource.

41 (e) Regulations. The Department shall establish regulations to implement the provisions  
42 of the sub-sections (c) and (d).

43 (f) Five Year Review. Every fifth year from the date of this Act, each distribution  
44 company shall make a compliance filing with the Department, ISO-New England, and the  
45 Telecommunications, Utilities, and Energy Committee on or before September 1st on the  
46 deployment of grid enhancing technologies, advanced reconductoring, or energy storage used as  
47 a transmission resource in a format determined by the Department.