

HOUSE No. 4222

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>
<i>Natalie M. Blais</i>	<i>1st Franklin</i>	<i>1/10/2024</i>
<i>Michael P. Kushmerek</i>	<i>3rd Worcester</i>	<i>1/10/2024</i>
<i>Marc R. Pacheco</i>	<i>Third Bristol and Plymouth</i>	<i>1/10/2024</i>
<i>Mindy Domb</i>	<i>3rd Hampshire</i>	<i>1/26/2024</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.

The Commonwealth of Massachusetts

**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.