

SENATE No. 2531

The Commonwealth of Massachusetts

PRESENTED BY:

Michael J. Barrett

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 technologies.

PETITION OF:

NAME:

Michael J. Barrett

DISTRICT/ADDRESS:

Third Middlesex

SENATE No. 2531

By Mr. Barrett, a petition (accompanied by bill, Senate, No. 2531) (subject to Joint Rule 12) of Michael J. Barrett for legislation to advance 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 technologies.

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 is hereby amended by inserting the following section:

2 Section 149. (a) Definitions.

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

7 Department. The Department of Public Utilities.

8 Advanced Reconductors. Hardware technology that can conduct electricity across
9 transmission lines and demonstrate enhanced performance over traditional conductor products.

10 Dynamic Line Rating. Hardware and/or software technologies used to appropriately
11 update the calculated thermal limits of existing transmission lines based on real-time and
12 forecasted weather conditions.

13 Advanced Power Flow Control. Hardware and/or software technologies used to push or
14 pull electric power in a manner that balances overloaded lines and underutilized corridors within
15 the transmission network.

16 Topology Optimization. Hardware and/or software technologies that identify
17 reconfigurations of the transmission grid and can enable the routing of power flows around
18 congested or overloaded transmission elements.

19 (b) For base rate proceedings and other proceedings in which a distribution company
20 proposes capital improvements or additions to the transmission system, the distribution company
21 shall conduct a cost-effectiveness and timetable analysis of multiple strategies, including, but not
22 limited to, the deployment of grid enhancing technologies, advanced reconductoring, and energy
23 storage used as a transmission resource. Where grid enhancing technologies, advanced
24 reconductoring, or energy storage used as a transmission resource whether in combination with
25 or instead of capital investments, offer a more cost-effective strategy to achieve transmission
26 goals, including, but not limited to, distributed energy resource interconnection, the Department
27 may approve the deployment of grid enhancing technologies, advanced reconductoring, or
28 energy storage used as a transmission resource as part of the overall solutions strategy.

29 (c) As part of a base rate filing or other filing in which it proposes capital improvements
30 or additions to the transmission system, the distribution company may propose a performance
31 incentive mechanism that provides a financial incentive for the cost-effective deployment of grid

32 enhancing technologies, advanced reconductoring, or energy storage used as a transmission
33 resource.

34 (d) The Department shall establish regulations to implement subsections (b) and (c).

35 (e) Every five years from the effective date of this Act, each distribution company shall
36 make a compliance filing with the Department, ISO-New England, and the Telecommunications,
37 Utilities, and Energy Committee on or before September 1st on the deployment of grid
38 enhancing technologies, advanced reconductoring, or energy storage used as a transmission
39 resource in a format determined by the Department.