

**HOUSE . . . . . No. 3667**

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The Commonwealth of Massachusetts

PRESENTED BY:

***Thomas A. Golden, Jr.***

*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 relative to modern grid access and customer service.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Thomas A. Golden, Jr.</i>	<i>16th Middlesex</i>	<i>1/17/2019</i>
<i>James Arciero</i>	<i>2nd Middlesex</i>	<i>3/25/2019</i>
<i>Brian M. Ashe</i>	<i>2nd Hampden</i>	<i>3/20/2019</i>
<i>Carlos González</i>	<i>10th Hampden</i>	<i>3/20/2019</i>
<i>Patrick Joseph Kearney</i>	<i>4th Plymouth</i>	<i>3/23/2019</i>
<i>Brian W. Murray</i>	<i>10th Worcester</i>	<i>3/19/2019</i>
<i>David Allen Robertson</i>	<i>19th Middlesex</i>	<i>3/19/2019</i>
<i>Steven Ultrino</i>	<i>33rd Middlesex</i>	<i>3/19/2019</i>
<i>Aaron Vega</i>	<i>5th Hampden</i>	<i>3/20/2019</i>

**HOUSE . . . . . No. 3667**

By Mr. Golden of Lowell, a petition (accompanied by bill, House, No. 3667) of Thomas A. Golden, Jr. and others relative to modern grid access and customer service. Telecommunications, Utilities and Energy.

**The Commonwealth of Massachusetts**

**In the One Hundred and Ninety-First General Court  
(2019-2020)**

An Act relative to modern grid access and customer service.

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

1 Chapter 164 of the General Laws is hereby amended by inserting after section 92A the  
2 following 5 sections:

3 Section 92B. Preamble. The General Court finds that customer access to a modern grid is  
4 a right and the public utility obligation to serve customers requires distribution companies to  
5 facilitate such access at reasonable costs and on reasonable terms. The General Court further  
6 finds that the capability and accessibility of the Commonwealth’s electrical system must be  
7 facilitated by investments in the electric grid that are aligned with the Commonwealth’s  
8 ambitious climate, renewable energy, and economic development goals. The implementation and  
9 periodic update of grid modernization efforts and formal interconnection standards to ensure fair,  
10 reasonable, and transparent customer grid access is essential to the achievement of the  
11 Commonwealth’s goals. As the distribution companies pursue grid modernization efforts, related  
12 technical, operational, policy and regulatory opportunities and challenges must continuously be

13 examined and addressed to ensure non-discriminatory customer access and to achieve the full  
14 potential of a modern grid. Establishing frameworks for continuous and collaborative efforts will  
15 assist utilities, regulators, distributed energy resource developers and other stakeholders to timely  
16 and effectively address these issues.

17         The purpose of this Act is to establish standards to ensure reasonable and timely access to  
18 the grid for all customers and to ensure that distribution companies undertake investments and  
19 process improvements to facilitate the transformation of the Commonwealth’s electrical grid to  
20 align with the Commonwealth’s ambitious climate, energy and economic development goals. In  
21 addition, this Act directs the Department of Public Utilities (“Department”) to initiate an  
22 ongoing, open proceeding within which a standing working group will convene on a periodic  
23 basis to make recommendations for improving grid modernization and access through  
24 interconnection, metering, customer service, and other rules for the Department and General  
25 Court’s consideration and action.

26         Section 92C. (a) No customer shall be denied the right to interconnect a distributed  
27 generation facility, energy storage system or a combined distributed generation facility and  
28 energy storage system. The department shall promulgate rules: (i) specifying the average time  
29 that may elapse from the date of initial interconnection application to the receipt of an  
30 interconnection services agreement for various sizes and types of distributed generation facilities  
31 and energy storage systems; and (ii) requiring distribution companies to enable the  
32 interconnection of distributed generation facilities and energy storage systems in accordance  
33 with the following schedule:

34 (1) Within 30 days of receipt of the application for facilities and systems with a  
35 Maximum Generation Capacity of less than 50 kW.

36 (2) Within 180 days of receipt of the application for facilities and systems with a  
37 Maximum Generation Capacity of 50 kW or greater and less than 500 kW.

38 (3) Within 1 year of the execution of the interconnection service agreement for facilities  
39 and systems with a Maximum Generation Capacity of 500 kW or greater.

40 (b) The following standardized interconnection cost allocations shall apply to customers  
41 for distributed generation facilities and energy storage systems: (i) no customer shall be charged  
42 more than \$50/kW AC of Maximum Generation Capacity to interconnect distributed generation  
43 facilities and energy storage systems; and (ii) any costs incurred by the distribution company for  
44 interconnecting a distributed generation facility or energy storage system that exceed \$50/kW  
45 AC of Maximum Generation Capacity shall be included in the distribution company's revenue  
46 requirement and recovered through the company's rate base.

47 (c) Rules adopted by the department under this section shall include: (i) provisions to  
48 track the performance of distribution companies under these rules; (ii) mechanisms to ensure  
49 compliance by distribution companies with the schedule and rules required by this section; (iii)  
50 mechanisms to enable customers to seek department review and enforcement of the schedule and  
51 rules required by this section; and (iv) provisions for expeditiously resolving disputes between  
52 customers and distribution companies.

53

54 (d) The department shall establish a mechanism to track utility compliance with  
55 subsection (a) and shall establish earning incentive and penalty mechanisms by which the  
56 distribution company shall: (i) recover an incentive if the company exceeds the timelines  
57 established in subsection (a); and (ii) incur a penalty if the company fails to meet the timelines  
58 established in subsection (a). Such mechanism shall be in addition to the mechanisms authorized  
59 in subsection (c).

60 (e) The department shall establish metrics for tracking distribution company  
61 interconnection performance and interconnection customer satisfaction. At minimum the  
62 department shall establish metrics for: (i) interconnecting distributed generation and energy  
63 storage customer satisfaction; (ii) time and cost of interconnection for various types,  
64 technologies, and sizes of interconnecting distributed generation facilities and energy storage  
65 systems; (iii) frequency of disputes under the interconnection tariff, including disputes resolved  
66 through Alternative Dispute Resolution; (iv) rate of deployment of distributed generation  
67 facilities and energy storage systems; (v) distribution system energy and capacity needs  
68 forecasting and hosting capacity analysis availability, including minimum timeframes for  
69 periodic updates to forecasting and hosting capacity analyses; and (vi) rate of improvement or  
70 degradation of any of the metrics described above. The department shall direct the distribution  
71 companies to report progress on each of these metrics, and such other metrics as determined by  
72 the department, every 6 months to the department and the general court.

73 Section 92D. (a) There is hereby established within the department a permanent and open  
74 working group for the purpose of considering improvements to interconnection tariffs consisting  
75 of the following members: the chairman of the commonwealth utilities commission, or his or her  
76 designee, who shall serve as co-chair; the commissioner of the department of energy resources,

77 or his or her designee, who shall serve as co-chair; and representatives from distribution  
78 companies, the distributed generation and energy storage industries, distributed generation and  
79 energy storage customer representatives, and such other stakeholders with a substantial interest  
80 in the topics addressed by the working group, all of whom shall be appointed by the  
81 commissioner of the department of energy resources or his or her designee. The non-chair  
82 members of the working group shall be comprised of no less than 2 representatives from each of  
83 the distribution companies, no less than 6 representatives from distributed generation and energy  
84 storage companies or trade associations representing the distributed generation and energy  
85 storage industry in the Commonwealth, and such other representatives as determined appropriate  
86 by the commissioner of the department of energy resources or his or her designee. The working  
87 group shall meet no less frequently than 4 times per year.

88 (b) The working group shall study and make recommendations regarding the following  
89 topics: (i) cost and best available technology for interconnecting and metering distributed  
90 generation and energy storage systems; (ii) means to improve grid reliability and resilience and  
91 facilitate improved customer access to a modern grid through distribution system upgrades; (iii)  
92 processes for identifying and achieving distribution system upgrade cost avoidance through the  
93 use of advanced inverter functions and other non-wires solutions, along with earning sharing  
94 mechanisms for capital investment deferrals; (iv) processes and customer service improvements  
95 for interconnecting customers adopting distributed generation and energy storage; (v) options for  
96 metering distributed generation and energy storage; (vi) interconnection and metering standards  
97 for exporting and non-exporting energy storage systems; (vii) interconnection of new  
98 technologies, including smart inverters and energy storage; and (viii) without limitation, such  
99 other technical, policy, and tariff issues related to and affecting interconnection performance and

100 customer service for distributed generation and energy storage customers in the commonwealth,  
101 as determined by the working group. The chairs may jointly create subcommittees of the  
102 working group to focus on specific issues of importance, as appropriate.

103 (c) The department of energy resources shall develop and submit a report detailing  
104 consensus recommendations of the working group and, if applicable, additional  
105 recommendations for which consensus was not reached to the department and the clerks of the  
106 house of representatives and senate with recommendations for improvements to grid  
107 modernization oversight and reporting, interconnection tariffs and such other topics designated to  
108 the working group in subsection (b), within 180 days of its first meeting, and every 180 days  
109 thereafter. Such report shall include consensus recommendations of the working group and, if  
110 applicable, additional recommendations for which consensus was not reached. The department  
111 shall every 180 days issue an order addressing the recommendations of the working group. The  
112 order shall specify those recommendations adopted and explain in detail the reasons for rejecting  
113 any recommendations not adopted.

114 Section 92E. Distribution companies shall submit interconnection reports to the  
115 department every 180 days. Such reports shall describe the results of all interconnection  
116 applications, including applications that did not result in authorization to interconnect. Such  
117 reports shall, at a minimum, include the following information:

118 (i) Average time elapsed from the date of initial interconnection application to the  
119 receipt of authorization to interconnect for various sizes and types of distributed generation and  
120 energy storage systems.

121 (ii) Average time elapsed from the date of initial interconnection application to the  
122 distribution company's commencement of design and construction of required interconnection-  
123 related upgrades for various sizes and types of distributed generation and energy storage systems.

124 (iii) Average time elapsed from the date of issuance of the interconnection agreement  
125 to the receipt of authorization to interconnect for various sizes and types of distributed generation  
126 and energy storage systems.

127 (iv) Average cost, per kW AC of Maximum Generation Capacity, for various sizes  
128 and types of distributed energy systems that have received authorization to interconnect.

129 (v) Average cost, per kW AC of Maximum Generation Capacity, for various sizes  
130 and types of distributed generation and energy storage systems for which an interconnection  
131 study or study was conducted, but which were not interconnected due to the customer's  
132 withdrawal of its application from the interconnection process.

133 (vi) The number and size, in kW AC, of applications received and the status of those  
134 applications.

135 Section 92F. (a) As used in this section and in sections 92B to 92E, inclusive, the  
136 following term shall, unless the context clearly requires otherwise, have the following meaning:-

137 "Maximum Generation Capability" the maximum injection of power at the point of  
138 common coupling, in kW AC, of which a distributed generation, energy storage, or combined  
139 distributed generation and energy storage facility is capable, taking into account any power or  
140 current injection limiting schemes proposed for the facility that are approved by the distribution  
141 company.



142 (b) Distribution companies shall utilize the Maximum Generation Capacity as the  
143 common basis for sizing and reviewing applications within application technical review  
144 processes.

145 SECTION 2. (a) Within 90 days of the effective date of this act, the department of public  
146 utilities shall direct distribution companies, as that term is defined in section 1 of chapter 164 of  
147 the General Laws, to develop plans to proactively upgrade the distribution grid to improve grid  
148 reliability and resiliency and increase customer access to distributed generation and energy  
149 storage, as those terms are defined in said section 1 of said chapter 164. Such plans shall be  
150 submitted to the department for approval within 1 year of the effective date of this act. The  
151 department shall promptly consider and approve all prudent investments, as determined by the  
152 department, proposed in such plans, and shall issue a final order directing the companies to  
153 implement all approved investments of such plans no later than June 1, 2020. The companies  
154 shall be permitted to recover all prudently incurred costs for implementing such plans as  
155 approved by the department.

156 (b) Plans developed by the distribution companies under this section shall propose  
157 discrete, specific, enumerated investments to the distribution system that will facilitate grid  
158 modernization, greater reliability and resiliency, and increased customer access to distributed  
159 generation and energy storage. In developing such plans, the companies shall solicit input from  
160 the public, appropriate state agencies, and companies engaged in the development and  
161 installation of distributed generation and energy storage.

162 (c) Plans developed by the distribution companies under this section shall describe in  
163 detail how such plans address each of the following elements:

164 (i) Improvements to the electric distribution system to improve system resiliency and  
165 address potential weather- and disaster-related risks.

166 (ii) The availability and suitability of new technologies such as smart inverters,  
167 controllable load, advanced metering and telemetry, and energy storage for meeting forecasted  
168 reliability and resiliency needs.

169 (iii) Patterns and forecasts of distributed generation and energy storage adoption in the  
170 company's territory, and upgrades that would facilitate increased adoption of such technologies.

171 (iv) Improvements to the distribution system that will align with customer preferences  
172 for access to distributed generation and energy storage.

173 (v) Improvements to the distribution system to facilitate the commonwealth's clean  
174 energy and climate goals.

175 SECTION 3. The rules required by subsection (a) of section 92C of chapter 164 of the  
176 General Laws shall be promulgated by the department of public utilities within 270 days of the  
177 effective date of this act.

178 SECTION 4. The standardized interconnection cost allocations set forth in subsection (b)  
179 of section 92C of chapter 164 of the General Laws shall apply to customers for distributed  
180 generation facilities and energy storage systems whose applications are submitted after the  
181 effective date of this act.

182 SECTION 5. The mechanism to track utility compliance required by subsection (d) of  
183 section 92C of chapter 164 of the General Laws shall be established by the department of public  
184 utilities within 1 year of the effective date of this act.

185           SECTION 6. The department of public utilities shall commence a proceeding to establish  
186 metrics for tracking distribution company interconnection performance and interconnection  
187 customer satisfaction pursuant to subsection (e) of section 92C of chapter 164 of the General  
188 Laws within 180 days of this act.

189           SECTION 7. Appointments to the working group established by section 92D of chapter  
190 164 of the General Laws shall be made by the commissioner of the department of energy  
191 resources or his or her designee within 60 days of the effective date of this act.

192           SECTION 8. Distribution companies shall submit their first interconnection report  
193 pursuant to section 92E of chapter 164 of the General Laws within 180 days of the effective date  
194 of this act.