



General Assembly

***Substitute Bill No. 7017***

*January Session, 2025*



***AN ACT CONCERNING GRID-ENHANCING TECHNOLOGIES.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1       Section 1. (NEW) (*Effective October 1, 2025*) (a) As used in this section  
2       and section 2 of this act:

3       (1) "Advanced conductor" means a conductor that, in comparison to  
4       conductors operated by an electric distribution company on October 1,  
5       2025, has a direct current electrical resistance not less than ten per cent  
6       lower, and has a similar diameter, while simultaneously increasing the  
7       capacity of such conductors by not less than seventy-five per cent.  
8       "Advanced conductor" includes the rebuilding of conductor support  
9       structures or other associated facilities;

10       (2) "Advanced power flow control" means any hardware or software  
11       technologies used to push or pull electric power in a manner that  
12       balances electric lines that are either exceeding capacity or are  
13       underutilized within the distribution or transmission system;

14       (3) "Dynamic line rating" means any hardware or software  
15       technologies used to update the calculated thermal limits of existing  
16       distribution or transmission lines in the state based on real-time and  
17       forecasted weather conditions;

18       (4) "Electric distribution company" has the same meaning as  
19 provided in section 16-1 of the general statutes;

20       (5) "Grid-enhancing technology" means any hardware or software  
21 technology that increases the capacity of, or enables enhanced or more  
22 efficient performance from, the electric distribution or transmission  
23 system in the state, including, but not limited to, dynamic line rating,  
24 advanced power flow control, topology optimization and energy  
25 storage when used as a distribution or transmission resource;

26       (6) "Incumbent transmission owner" means any person or entity that  
27 owns, operates and maintains an electric transmission facility in the  
28 state and that is not an electric distribution company;

29       (7) "Materially modify" means any construction activity relating to a  
30 facility described in subdivision (1) or (4) of subsection (a) of section 16-  
31 50i of the general statutes with an estimated cost of not less than five  
32 million dollars;

33       (8) "Nontransmission alternative" means an electric grid investment  
34 or project that uses nontraditional transmission and distribution  
35 solutions, including, but not limited to, distributed generation, energy  
36 storage, energy efficiency demand response and grid software and  
37 controls, to defer or replace the need for specific equipment upgrades,  
38 such as transmission and distribution lines or transformers, by reducing  
39 electric load at a substation or circuit level; and

40       (9) "Topology optimization" means any hardware or software  
41 technology that identifies reconfigurations of the distribution or  
42 transmission grid in the state to enable the routing of power flows  
43 around congested or overloaded elements of the electric grid.

44       (b) (1) Any electric distribution company or incumbent transmission  
45 owner that seeks to construct or materially modify any facility described  
46 in subdivision (1) or (4) of subsection (a) of section 16-50i of the general  
47 statutes, except where such proposed construction or modification is the  
48 result of a transmission planning process administered by the regional

49 independent system operator, as defined in section 16-1 of the general  
50 statutes, shall design at least (A) one project alternative to such  
51 construction or modification that utilizes advanced conductors to  
52 benefit electric ratepayers, mitigate environmental concerns and  
53 promote electric grid efficiency, through cost savings to such ratepayers,  
54 increased efficiency and the mitigation of long-term risk to human life,  
55 infrastructure and property resulting from wildfires, and (B) one such  
56 project alternative utilizing grid-enhancing technology or  
57 nontransmission alternative technology, applicable in whole or in part,  
58 to such construction or material modification.

59 (2) Such company or owner shall submit each project alternative  
60 required under subdivision (1) of this subsection with any application  
61 submitted by such company or owner to the Connecticut Siting Council  
62 concerning such construction or material modification. If any such  
63 project alternative is not preferred by such company or owner, such  
64 company or owner shall provide a detailed, written explanation  
65 comparing the cost-effectiveness and appropriateness of the project  
66 alternative with such project preferred by such company or owner and  
67 submit such explanation with such application.

68 (3) If any project alternative submitted pursuant to this subsection  
69 proposes to utilize any grid-enhancing technology or nontransmission  
70 alternative, and such project alternative is not less cost effective than the  
71 project preferred by such company or owner, the Connecticut Siting  
72 Council shall give preference to such project alternative in rendering a  
73 decision concerning such application.

74 (c) Beginning January 15, 2026, and annually thereafter, each electric  
75 distribution company and incumbent transmission owner shall file with  
76 the Public Utilities Regulatory Authority (1) a schedule of any planned  
77 construction or material modification of any facility described in  
78 subdivision (1) or (4) of subsection (a) of section 16-50i of the general  
79 statutes for the next five years, including cost estimates and project  
80 details, (2) a plain-language description of each such planned  
81 construction or material modification not exceeding two written pages,

82 and (3) data concerning any construction or material modification of any  
83 facility described in subdivision (1) or (4) of subsection (a) of section 16-  
84 50i of the general statutes completed by such company or owner on or  
85 after January 1, 2020, including estimated costs during planning and  
86 final costs for such projects.

87 (d) (1) Not more than one hundred eighty days after any filing  
88 required pursuant to subsection (c) of this section, the commissioner, in  
89 consultation with the Consumer Counsel, shall determine whether any  
90 facility listed for construction or material modification requires further  
91 evaluation, considering factors including, but not limited to, (A) project  
92 justification, scope and cost-effectiveness, (B) transmission planning, (C)  
93 environmental impacts, (D) infrastructure necessity, and (E) the  
94 feasibility of alternative solutions, including any nontransmission  
95 alternative.

96 (2) If any evaluation under this subsection identifies a feasible  
97 nontransmission alternative, the commissioner may initiate a  
98 procurement process to seek proposals to implement any such  
99 alternative. The Public Utilities Regulatory Authority shall review and  
100 approve any agreement concerning the implementation of any such  
101 alternative if the authority determines such alternative (A) ensures  
102 reliability, (B) is cost effective, and (C) is technically feasible.

103 (3) In conducting an evaluation pursuant to this subsection, the  
104 commissioner and the Consumer Counsel may hire consultants to assist  
105 with such evaluation. Costs incurred by the commissioner or the  
106 Consumer Counsel for the service of any such consultant may be  
107 recovered through the nonbypassable, federally mandated congestion  
108 charge.

109 (4) Each electric distribution company or incumbent transmission  
110 owner shall provide data and information requested by the  
111 commissioner or the Consumer Counsel in connection with any  
112 evaluation pursuant to this subsection.

113 (e) Beginning on January 1, 2027, and every five years thereafter, each

114 electric distribution company and incumbent transmission owner shall  
115 file a report concerning their compliance with the provisions of this  
116 section with the Public Utilities Regulatory Authority. The authority  
117 shall transmit a copy of each such report to the regional independent  
118 system operator, as defined in section 16-1 of the general statutes, and,  
119 in accordance with the provisions of section 11-4a of the general statutes,  
120 the joint standing committee of the General Assembly having  
121 cognizance of matters relating to energy and technology.

122       Sec. 2. (NEW) (*Effective October 1, 2025*) In any base rate or capital  
123 improvement proceeding before the Public Utilities Regulatory  
124 Authority, an electric distribution company shall submit a report to the  
125 authority that analyzes the cost-effectiveness of, and projected  
126 timetables for, deploying grid-enhancing technologies, advanced  
127 conductors or energy storage relevant to such company's operations.  
128 Such report may include, but need not be limited to, proposed  
129 performance incentive mechanisms for the cost-effective deployment of  
130 such technologies, conductors or storage. The authority may approve  
131 the deployment of such technologies, conductors or storage, with or  
132 without performance incentive mechanisms, if the authority deems such  
133 technologies, conductors or storage are cost effective.

134       Sec. 3. Subsection (c) of section 16-18a of the general statutes is  
135 repealed and the following is substituted in lieu thereof (*Effective October*  
136 *1, 2025*):

137       (c) The Department of Energy and Environmental Protection, [in  
138 consultation with] the Public Utilities Regulatory Authority and the  
139 Office of Consumer Counsel [,] may retain consultants to assist [its] the  
140 staff of the department, authority or office by providing expertise in  
141 areas in which staff expertise does not currently exist or to supplement  
142 staff expertise for any proceeding before or in any negotiation with the  
143 Federal Energy Regulatory Commission, the United States Department  
144 of Energy, the United States Nuclear Regulatory Commission, the  
145 United States Securities and Exchange Commission, the Federal Trade  
146 Commission, the Federal Communications Commission or the United

147 States Department of Justice. [The Public Utilities Regulatory Authority,  
148 in consultation with the Office of Consumer Counsel, may retain  
149 consultants to assist its staff by providing expertise in areas in which  
150 staff expertise does not currently exist or to supplement staff expertise  
151 for any proceeding before or in any negotiation with the Federal  
152 Communications Commission.] All reasonable and proper expenses of  
153 any such consultants shall be borne by the public service companies,  
154 certified telecommunications providers, holders of a certificate of video  
155 franchise authority, electric suppliers or gas registrants affected by the  
156 decisions of such proceeding and shall be paid at such times and in such  
157 manner as the authority directs, provided such expenses (1) shall be  
158 apportioned in proportion to the revenues of each affected entity as  
159 reported to the authority pursuant to section 16-49 for the most recent  
160 fiscal year, and (2) shall not exceed two and one-half million dollars per  
161 calendar year, including any appeals thereof, unless the authority finds  
162 good cause for exceeding the limit. The authority shall recognize all such  
163 expenses as proper business expenses of the affected entities for  
164 ratemaking purposes pursuant to section 16-19e, if applicable.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>October 1, 2025</i>	New section
Sec. 2	<i>October 1, 2025</i>	New section
Sec. 3	<i>October 1, 2025</i>	16-18a(c)

***Statement of Legislative Commissioners:***

Section 1(a)(1) was rewritten for clarity.

***ET***            *Joint Favorable Subst.*