



Senate

General Assembly

File No. 611

January Session, 2015

Substitute Senate Bill No. 570

Senate, April 13, 2015

The Committee on Energy and Technology reported through SEN. DOYLE of the 9th Dist., Chairperson of the Committee on the part of the Senate, that the substitute bill ought to pass.

AN ACT CONCERNING ELECTRIC FIXED BILL FEES AND GRID MODERNIZATION.

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

- 1 Section 1. (NEW) (*Effective July 1, 2015*) (a) As used in this section:
- 2 (1) "Residential fixed charge" means any fixed fee charged to
3 residential electric customers, including, but not limited to, (A) a fixed
4 charge for distribution basic service, (B) a distribution customer service
5 charge, (C) a customer charge, (D) a basic service fee, or (E) other fixed
6 charge, which is separate and distinct from any distribution charge per
7 kilowatt-hour;
- 8 (2) "Electric distribution company" has the same meaning as
9 provided in section 16-1 of the general statutes, as amended by this act.
- 10 (b) The Public Utilities Regulatory Authority shall adjust each
11 electric distribution company's residential fixed charge upon such
12 company's filing with the authority an amendment of rate schedules

13 pursuant to section 16-19 of the general statutes to not more than ten
14 dollars per monthly billing cycle. Once adjusted, the residential fixed
15 charge shall not exceed ten dollars per billing cycle. The authority shall
16 not adjust a company's residential fixed charge to an amount that
17 exceeds ten dollars per billing cycle in any rate case thereafter.

18 (c) On or after October 1, 2025, the authority shall initiate a docket
19 proceeding to investigate whether to eliminate the residential fixed
20 charge or to adjust the residential fixed charge to an amount exceeding
21 ten dollars per monthly billing cycle. On or before January 1, 2026, the
22 authority shall report, in accordance with section 11-4a of the general
23 statutes, the results of such proceeding to the joint standing committee
24 of the General Assembly having cognizance of matters relating to
25 energy.

26 Sec. 2. Subsection (a) of section 16-1 of the general statutes is
27 amended by adding subdivisions (48) and (49) as follows (*Effective July*
28 *1, 2015*):

29 (NEW) (48) "Distributed energy resource" means any zero-emission
30 customer-side distributed resource, demand response, end user energy
31 efficiency and conservation measure, combined heat and power
32 system, thermal energy generated by a thermal energy transportation
33 company, distributed intelligence, microgrid or energy storage device.

34 (NEW) (49) "Energy storage device" means any technology used to
35 store electric energy including, but not limited to, a conventional
36 battery, advanced battery, flywheel, electric vehicle, electrochemical
37 capacitor, superconducting magnetic energy storage, power electronics
38 or control system.

39 Sec. 3. (NEW) (*Effective July 1, 2015*) (a) Not later than August 1,
40 2015, the Commissioner of Energy and Environmental Protection shall
41 conduct a public information meeting and hear public comments
42 regarding methods to: (1) Analyze the costs and benefits that different
43 distributed energy resources, as defined in section 16-1 of the general
44 statutes, as amended by this act, provide to the electric distribution

45 companies and ratepayers; (2) account for such costs and benefits; and
46 (3) implement changes to the regulation of electric distribution
47 companies that conform electric rate and revenue structures to state
48 energy policy.

49 (b) The Commissioner of Energy and Environmental Protection
50 shall submit a report, in accordance with the provisions of section 11-
51 4a of the general statutes, to the joint standing committee of the
52 General Assembly having cognizance of matters relating to energy on
53 the commissioner's findings from such public information meeting.
54 The commissioner may initiate additional proceedings if the
55 commissioner determines that substantial changes are necessary to
56 properly account for the costs and benefits of distributed energy
57 resources.

58 Sec. 4. (NEW) (*Effective July 1, 2015*) (a) Notwithstanding subsection
59 (a) of section 16-244e of the general statutes, each electric distribution
60 company, as defined in section 16-1 of the general statutes, as amended
61 by this act, may, in consultation with the Connecticut Green Bank,
62 submit a proposal to the Department of Energy and Environmental
63 Protection to build, own or operate energy storage devices, as defined
64 in section 16-1 of the general statutes, as amended by this act, for the
65 purpose of demonstrating and investigating how energy storage
66 devices can be reliably and efficiently integrated into the operation of
67 the electric distribution system in a manner that maximizes the value
68 provided to the electric distribution company, its ratepayers and
69 society from such resources.

70 (b) The department shall, in consultation with the Connecticut
71 Green Bank, evaluate such proposals and may approve such
72 proposals, provided the net cost of all department approved proposals,
73 in the aggregate, does not exceed five million dollars.

74 (c) Each electric distribution company may enter into joint
75 ownership agreements, partnerships or other contractual agreements
76 for services with private entities to carry out the provisions of this
77 section.

78 (d) Not later than July 1, 2016, the department shall evaluate such
79 approved proposals pursuant to this section and submit a report, in
80 accordance with the provisions of section 11-4a of the general statutes,
81 to the joint standing committee of the General Assembly having
82 cognizance of matters relating to energy regarding the performance,
83 costs and benefits associated with energy storage devices procured
84 pursuant to this section.

85 Sec. 5. (NEW) (*Effective July 1, 2015*) (a) Not later than October 1,
86 2015, the Commissioner of Energy and Environmental Protection shall
87 initiate an uncontested proceeding or proceedings to (1) determine the
88 net value that distributed energy resources, as defined in section 16-1
89 of the general statutes, as amended by this act, provide to electric
90 distribution companies and ratepayers; and (2) consider whether to
91 establish a methodology to credit the owners of such distributed
92 energy resources.

93 (b) In determining the value of a distributed energy resource in a
94 proceeding initiated pursuant to subsection (a) of this section, the
95 commissioner shall consider the costs and benefits associated with the
96 following factors: (1) Energy; (2) capacity; (3) grid support services; (4)
97 financial risk; (5) reliability; (6) resiliency; and (7) environmental
98 attributes.

99 (c) Not less than sixty days prior to convening an uncontested
100 proceeding initiated pursuant to subsection (a) of this section, the
101 commissioner shall convene a meeting with interested stakeholders to
102 determine the scope of a distributed energy resource to be evaluated at
103 such proceeding and any other issues the commissioner deems
104 relevant. Prior to convening an uncontested proceeding initiated
105 pursuant to subsection (a) of this section, the commissioner shall
106 conduct not less than one public meeting and one technical meeting
107 where technical personnel shall be made available to respond to
108 questions.

109 (1) Not less than fifteen days prior to convening a public or technical
110 meeting, such commissioner shall publish notice of such meeting. Such

111 notice shall disclose the commissioner's proposed recommendations
112 regarding the net value of such distributed energy resource, time
113 period for public comment and the time, date and location of such
114 meeting.

115 (2) The commissioner shall make proposed recommendations
116 available for public comment for a period of not less than thirty days
117 prior to any proceeding conducted pursuant to subsection (a) of this
118 section. The commissioner shall fully consider all oral and written
119 public comments concerning the proposed valuation methodology for
120 such distributed energy resource before issuing the final valuation
121 methodology. The testimony, public comments and remarks made at
122 such proceeding and at such public and technical meetings shall be
123 transcribed and made available on the department's Internet web site.

124 (d) If at the conclusion of any proceeding conducted pursuant to
125 subsection (a) of this section, the commissioner establishes a final
126 valuation methodology for a distributed energy resource, the
127 commissioner may:

128 (1) Direct each electric distribution company to provide a tariff to
129 owners of such distributed energy resource. Not later than the
130 department publishes such final valuation methodology, each electric
131 distribution company shall file such tariff for approval with the Public
132 Utilities Regulatory Authority. Such tariff shall include, but not be
133 limited to, new qualifying facilities for virtual net metering pursuant to
134 section 16-244u of the general statutes, as amended by this act, and net
135 metering pursuant to section 16-243h of the general statutes, as
136 amended by this act; and

137 (2) Update the final valuation methodology as needed and require
138 each electric distribution company to revise such tariff in accordance
139 with such update.

140 Sec. 6. Subsection (b) of section 16-244u of the general statutes is
141 repealed and the following is substituted in lieu thereof (*Effective July*
142 *1, 2015*):

143 (b) Each electric distribution company shall provide virtual net
144 metering to its municipal, state or agricultural customer hosts and
145 shall make any necessary interconnections for a virtual net metering
146 facility or an agricultural virtual net metering facility. Upon request by
147 a municipal, state or agricultural customer host to implement the
148 provisions of this section, an electric distribution company shall install
149 metering equipment, if necessary. For each municipal, state or
150 agricultural customer host, such metering equipment shall (1) measure
151 electricity consumed from the electric distribution company's facilities;
152 (2) deduct the amount of electricity produced but not consumed; and
153 (3) register, for each monthly billing period, the net amount of
154 electricity produced and, if applicable, consumed. If, in a given
155 monthly billing period, a municipal, state or agricultural customer host
156 supplies more electricity to the electric distribution system than the
157 electric distribution company delivers to the municipal, state or
158 agricultural customer host, the electric distribution company shall bill
159 the municipal, state or agricultural customer host for zero kilowatt
160 hours of generation and assign a virtual net metering credit to the
161 municipal, state or agricultural customer host's beneficial accounts for
162 the next monthly billing period. Such credit shall be applied against
163 the generation service component and a declining percentage of the
164 transmission and distribution charges billed to the beneficial accounts.
165 Such credit shall be allocated among such accounts in proportion to
166 their consumption for the previous twelve billing periods for a
167 customer host implementing virtual net metering under this section on
168 or before the Commissioner of Energy and Environmental Protection
169 establishes a final valuation methodology and the electric distribution
170 company implements a tariff pursuant to section 5 of this act. For any
171 new customer host qualifying under this section, such virtual net
172 metering credit shall be established by the commissioner pursuant to
173 section 5 of this act.

174 Sec. 7. Section 16-243h of the general statutes is repealed and the
175 following is substituted in lieu thereof (*Effective July 1, 2015*):

176 On and after January 1, 2000, each electric supplier or any electric

177 distribution company providing standard offer, transitional standard
178 offer, standard service or back-up electric generation service, pursuant
179 to section 16-244c, shall give a credit for any electricity generated by a
180 customer from a Class I renewable energy source or a hydropower
181 facility that has a nameplate capacity rating of two megawatts or less.
182 The electric distribution company providing electric distribution
183 services to such a customer shall make such interconnections necessary
184 to accomplish such purpose. An electric distribution company, at the
185 request of any residential customer served by such company and if
186 necessary to implement the provisions of this section, shall provide for
187 the installation of metering equipment that (1) measures electricity
188 consumed by such customer from the facilities of the electric
189 distribution company, (2) deducts from the measurement the amount
190 of electricity produced by the customer and not consumed by the
191 customer, and (3) registers, for each billing period, the net amount of
192 electricity either (A) consumed and produced by the customer, or (B)
193 the net amount of electricity produced by the customer. If, in a given
194 monthly billing period, a customer-generator supplies more electricity
195 to the electric distribution system than the electric distribution
196 company or electric supplier delivers to the customer-generator, the
197 electric distribution company or electric supplier shall credit the
198 customer-generator for the excess by reducing the customer-
199 generator's bill for the next monthly billing period to compensate for
200 the excess electricity from the customer-generator in the previous
201 billing period at a rate of one kilowatt-hour for one kilowatt-hour
202 produced. The electric distribution company or electric supplier shall
203 carry over the credits earned from monthly billing period to monthly
204 billing period, and the credits shall accumulate until the end of the
205 annualized period. At the end of each annualized period, the electric
206 distribution company or electric supplier shall compensate the
207 customer-generator for any excess kilowatt-hours generated, at the
208 avoided cost of wholesale power for a customer implementing net
209 metering under this section on or before the Commissioner of Energy
210 and Environmental Protection establishes a final valuation
211 methodology and the electric distribution company implements a tariff

212 pursuant to section 5 of this act. For any new source or facility
 213 qualifying under this section, the electric distribution company or
 214 electric supplier shall compensate the customer-generator at a rate
 215 established by the commissioner pursuant to section 5 of this act. A
 216 customer who generates electricity from a generating unit with a
 217 nameplate capacity of more than ten kilowatts of electricity pursuant
 218 to the provisions of this section shall be assessed for the competitive
 219 transition assessment, pursuant to section 16-245g and the systems
 220 benefits charge, pursuant to section 16-245l, based on the amount of
 221 electricity consumed by the customer from the facilities of the electric
 222 distribution company without netting any electricity produced by the
 223 customer. For purposes of this section, "residential customer" means a
 224 customer of a single-family dwelling or multifamily dwelling
 225 consisting of two to four units.

This act shall take effect as follows and shall amend the following sections:		
Section 1	July 1, 2015	New section
Sec. 2	July 1, 2015	16-1(a)
Sec. 3	July 1, 2015	New section
Sec. 4	July 1, 2015	New section
Sec. 5	July 1, 2015	New section
Sec. 6	July 1, 2015	16-244u(b)
Sec. 7	July 1, 2015	16-243h

Statement of Legislative Commissioners:

In Section 2(a)(48), the phrase "including but not limited to, a battery, flywheel or electric vehicle" was deleted to avoid repetition with the definition of "energy storage device" in Section 2(a)(49). In Section 5(d), the word "final" was added before "valuation" for consistency. In Section 6(b), the word "valuation" was added after "final" for consistency.

ET *Joint Favorable Subst.*

The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.

OFA Fiscal Note

State Impact:

Agency Affected	Fund-Effect	FY 16 \$	FY 17 \$
Statewide (includes various state agencies)	All Funds - Potential Cost	See Below	See Below

Note: All Funds=All Funds

Municipal Impact:

Municipalities	Effect	FY 16 \$	FY 17 \$
All Municipalities	Potential Cost	See Below	See Below

Explanation

The bill would require the Public Utilities Regulatory Authority (PURA) to adjust an electric distribution company's (EDC) residential fixed charge to no more than \$10 per monthly billing cycle the next time the EDC files a request to amend its rate schedule. As this only affects residential customers, the provision has no fiscal impact on the state or municipalities as ratepayers.

The bill also allows EDCs, in consultation with the Connecticut Green Bank, to submit a proposal to the Department of Energy and Environmental Protection (DEEP) to build, own or operate energy storage devices. DEEP, in consultation with the Green Bank, must evaluate the proposals and may approve them as long as the total net cost of all approved proposals does not exceed \$5 million. This provision has no fiscal impact on DEEP.

The bill does not specify whether the EDCs will be able to recover their costs for the proposals through rates. To the extent that these costs are recoverable through electric rates, there would be a cost to the

state and municipalities as ratepayers.

Lastly, the bill would also require the Department of Energy and Environmental Protection (DEEP) to determine the net value of distributed energy resources (DER) to EDCs and ratepayers and consider whether to establish a methodology to credit DER owners. This would result in no fiscal impact as DEEP has the staff and expertise to perform this function.

The Out Years

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation.

OLR Bill Analysis**sSB 570*****AN ACT CONCERNING ELECTRIC FIXED BILL FEES AND GRID MODERNIZATION.*****SUMMARY:**

Starting the next time each electric distribution company (EDC, i.e., Eversource and United Illuminating) files for a rate change, this bill imposes a \$10 per month cap on the company's fixed charge for its residential electric customers. The Public Utilities Regulatory Authority (PURA) must initiate a proceeding on or after October 1, 2025 to determine whether fixed charges should be eliminated or the cap should be increased. PURA must report the proceeding's results to the Energy and Technology Committee by January 1, 2026.

The bill also requires the Department of Energy and Environmental Protection (DEEP) commissioner to hold a series of meetings and an uncontested proceeding to (1) determine the net value of distributed energy resources (DER) and (2) consider establishing a methodology to credit DER owners. If he establishes such a methodology, he can require the EDCs to provide a new tariff (rate payments) to DER owners, which must be applied to new net metering and virtual net metering facilities under certain circumstances.

Lastly, the bill allows EDCs, in consultation with the Connecticut Green Bank and within certain limitations, to own or operate energy storage devices. Under the bill, such devices are any technology used to store electric energy, including a conventional battery, advanced battery, flywheel, electric vehicle, electrochemical capacitor, superconducting magnetic energy storage, power electronics, or control system.

EFFECTIVE DATE: July 1, 2015

§ 1 – EDC RESIDENTIAL FIXED CHARGE CAP

The bill requires PURA to adjust an EDC's residential fixed charge to no more than \$10 per monthly billing cycle the next time the EDC files a request to amend its rate schedule. Under the bill, a "residential fixed charge" is any fixed fee charged to residential electric customers separate and distinct from any distribution charge per kilowatt-hour, including (1) a fixed charge for distribution basic service, (2) a distribution customer service charge, (3) a customer charge, (4) a basic service fee, or (5) other fixed charge. Once PURA adjusts the fixed charge, it cannot be adjusted to more than \$10 per billing cycle in any future rate case.

§§ 2-3, 5-7 – DISTRIBUTED ENERGY RESOURCE VALUE

The bill requires the DEEP commissioner, by October 1, 2015, to open an uncontested proceeding or proceedings to (1) determine the net value that DERs provide to EDCs and ratepayers and (2) consider whether to establish a methodology to credit DER owners. (An "uncontested" proceeding is one which, among other things, cannot be appealed to the Superior Court under the Uniform Administrative Procedure Act.) In determining a DER's value, the commissioner must consider the costs and benefits associated with (1) energy, (2) capacity, (3) grid support services, (4) financial risk, (5) reliability, (6) resiliency, and (7) environmental attributes.

Under the bill, a "distributed energy resource" is:

1. any zero-emission customer-side distributed resource (e.g., residential solar panels);
2. demand response (e.g., programs that pay certain customers to reduce usage during times of peak demand);
3. end user energy efficiency and conservation measure;
4. combined heat and power system;
5. thermal energy generated by a thermal energy transportation

company;

6. distributed intelligence;
7. microgrid; or
8. energy storage device.

By law, unchanged by the bill, a “customer-side distributed resource” includes an electricity generator rated at 65 megawatts or less on a retail end user’s premises, including fuel cells, among other things. (Fuel cells would presumably not be considered “zero-emission” resources and thus not be included as DERs under the bill.) The bill does not define “distributed intelligence.”

The bill also requires the commissioner to hold various meetings and meet certain procedural steps before opening the proceeding. The testimony, public comments, and remarks made at the proceeding and meetings must be transcribed and made available on DEEP’s website.

Pre-Proceeding Meetings

Public Information Meeting. The bill requires the DEEP commissioner, by August 1, 2015, to conduct a public information meeting and hear public comments on methods to (1) analyze the costs and benefits that different DERs provide to EDCs and ratepayers, (2) account for those costs and benefits, and (3) implement changes to EDC regulation that conform electric rate and revenue structures to state energy policy.

The commissioner must submit a report on his findings from the meeting to the Energy and Technology Committee. (The bill does not specify a deadline for this report.) The bill allows him to initiate additional proceedings if he determines that substantial changes are needed to properly account for DER’s costs and benefits.

Stakeholder Meeting. The bill requires the DEEP commissioner, at least 60 days before opening the uncontested proceeding, to convene a meeting with interested stakeholders to determine the scope of the

DERs to be evaluated and any other issues the commissioner deems relevant.

Proposed Recommendations, Public and Technical Meetings.

The bill requires the commissioner to make proposed recommendations available for public comment, at least 30 days before opening the uncontested proceeding.

It also requires him, before opening the uncontested proceeding, to conduct at least one public meeting and one technical meeting where technical personnel must be available to respond to questions. The commissioner must publish a notice at least 15 days before either meeting. The notice must include the commissioner's proposed recommendations on DERs' net value; the time period for public comment; and the meeting's date, time, and location.

Final Valuation and EDC Tariffs

The bill requires the commissioner to fully consider all oral and written public comments about the proposed DER valuation methodology before he issues a final valuation methodology through the uncontested proceeding. If he does so, the bill allows him to direct the EDCs to provide a tariff to DER owners. The EDCs must file the tariff for approval by PURA by the time that DEEP publishes a final valuation methodology. (It is unclear how the EDCs will be able to prepare and file a new tariff before DEEP publishes its final valuation methodology.) The bill does not specify what criteria PURA must use to evaluate and approve the tariff.

The tariff must at least include new qualifying net metering facilities and virtual net metering facilities. In general, "net metering" provides billing credits that allow customers with certain renewable energy systems to "run their meters backwards" based on how much excess electricity they generate. Under current law, net metering customers who have excess net metering credits at the end of an annual period are paid the avoided cost of wholesale power for their excess kilowatt hours of electricity produced. Under the bill, such excess generation produced by any new facilities (presumably, those

that begin operating after the new tariff is implemented) would instead be paid according to the new tariff.

“Virtual net metering” generally allows certain net metering customers to assign their excess net metering billing credits to other meters and also run them “backwards.” When a virtual net metering customer produces excess electricity and assigns billing credits to another meter, current law requires the credits to be applied against the other meter’s generation service component and a declining percentage of its transmission and distribution charges, prorated according to their past 12 months of consumption. Under the bill, the value of the credit that a new virtual net metering customer (presumably, one that begins operating a virtual net metering facility after the new tariff is implemented) assigns to another meter must be established under the new tariff.

The bill also allows the commissioner to update the final valuation methodology as needed and require the EDCs to revise their tariffs accordingly. (It does not specify any procedural requirements for these updates.)

§ 2, 4 – ENERGY STORAGE

The bill allows the EDCs, in consultation with the Green Bank, to submit a proposal to DEEP to build, own, or operate energy storage devices to demonstrate and investigate how they can be reliably and efficiently integrated into the electric distribution system’s operation in a way that maximizes their value to EDCs, ratepayers, and society. The EDCs can enter into joint ownership agreements, partnerships, or other contractual agreements for services with private entities to carry out the proposals.

DEEP, in consultation with the Green Bank, must evaluate the proposals and may approve them as long as the total net cost of all approved proposals does not exceed \$5 million. (The bill does not specify whether the EDCs will be able to recover their costs for the proposals through rates.) By July 1, 2016, DEEP must evaluate the

approved proposals and submit a report to the Energy and Technology Committee on performance, costs, and benefits.

COMMITTEE ACTION

Energy and Technology Committee

Joint Favorable Substitute

Yea 21 Nay 2 (03/24/2015)