



House of Representatives

General Assembly

File No. 526

January Session, 2015

House Bill No. 6838

House of Representatives, April 8, 2015

The Committee on Energy and Technology reported through REP. REED of the 102nd Dist., Chairperson of the Committee on the part of the House, that the bill ought to pass.

AN ACT CONCERNING THE ENCOURAGEMENT OF LOCAL ECONOMIC DEVELOPMENT AND ACCESS TO RESIDENTIAL RENEWABLE ENERGY.

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

1 Section 1. Section 16-245ff of the general statutes is repealed and the
2 following is substituted in lieu thereof (*Effective from passage*):

3 (a) As used in this section and section 16-245gg, as amended by this
4 act:

5 (1) "Performance-based incentive" means an incentive paid out on a
6 per kilowatt-hour basis.

7 (2) "Expected performance-based buydown" means an incentive
8 paid out as a one-time upfront incentive based on expected system
9 performance.

10 (3) "Qualifying residential solar photovoltaic system" means a solar
11 photovoltaic project that receives funding from the Connecticut Green

12 Bank, is certified by the authority as a Class I renewable energy source,
13 as defined in subdivision (20) of subsection (a) of section 16-1, emits no
14 pollutants, is less than twenty kilowatts in size, is located on the
15 customer-side of the revenue meter of one-to-four family homes and
16 serves the distribution system of an electric distribution company.

17 (4) "Solar home renewable energy credit" means a renewable energy
18 credit created by the production of one megawatt hour of electricity
19 generated by one or more qualifying residential solar photovoltaic
20 systems with an approved incentive from the Connecticut Green Bank
21 on or after January 1, 2015.

22 [(a)] (b) The Connecticut Green Bank established pursuant to section
23 16-245n shall structure and implement a residential solar investment
24 program established pursuant to this section, which shall result in a
25 minimum of [thirty] three hundred megawatts of new residential solar
26 photovoltaic installations located in this state on or before December
27 31, 2022, the [annual] procurement and cost of which shall be
28 determined by the bank [and the cost of which shall not exceed one-
29 third of the total surcharge collected annually pursuant to said] in
30 accordance with this section. [16-245n.]

31 [(b)] (c) The Connecticut Green Bank shall offer direct financial
32 incentives, in the form of performance-based incentives or expected
33 performance-based buydowns, for the purchase or lease of qualifying
34 residential solar photovoltaic systems. [For the purposes of this
35 section, "performance-based incentives" means incentives paid out on
36 a per kilowatt-hour basis, and "expected performance-based
37 buydowns" means incentives paid out as a one-time upfront incentive
38 based on expected system performance.] The bank shall consider
39 willingness to pay studies and verified solar photovoltaic system
40 characteristics, such as operational efficiency, size, location, shading
41 and orientation, when determining the type and amount of incentive.
42 [Notwithstanding the provisions of subdivision (1) of subsection (h) of
43 section 16-244c, the amount of renewable energy produced from Class
44 I renewable energy sources receiving tariff payments or included in

45 utility rates under this section shall be applied to reduce the electric
46 distribution company's Class I renewable energy source portfolio
47 standard. Customers who receive expected performance-based
48 buydowns under this section shall not be eligible for a credit pursuant
49 to section 16-243h.]

50 [(c)] (d) [Beginning with the comprehensive plan covering the
51 period from July 1, 2011, to June 30, 2013, the] The Connecticut Green
52 Bank shall develop and publish [in each such plan] on its Internet web
53 site a proposed schedule for the offering of performance-based
54 incentives or expected performance-based buydowns over the
55 duration of any such solar incentive program. Such schedule shall: (1)
56 Provide for a series of solar capacity blocks the combined total of
57 which shall be a minimum of [thirty] three hundred megawatts and
58 projected incentive levels for each such block; (2) provide incentives
59 that are sufficient to [meet reasonable payback expectations of]
60 provide the residential consumer with a competitive electricity price,
61 taking into consideration the estimated cost of residential solar
62 installations, the value of the energy offset by the system, the cost of
63 financing the system, and the availability and estimated value of other
64 incentives, including, but not limited to, federal and state tax
65 incentives and revenues from the sale of solar home renewable energy
66 credits; (3) provide incentives that decline over time and will foster the
67 sustained, orderly development of a state-based solar industry; (4)
68 automatically adjust to the next block once the board has issued
69 reservations for financial incentives provided pursuant to this section
70 from the board fully committing the target solar capacity and available
71 incentives in that block; and (5) provide comparable economic
72 incentives for the purchase or lease of qualifying residential solar
73 photovoltaic systems. The [bank] Connecticut Green Bank may retain
74 the services of a third-party entity with expertise in the area of solar
75 energy program design to assist in the development of the incentive
76 schedule or schedules. [The Department of Energy and Environmental
77 Protection shall review and approve such schedule.] Nothing in this
78 subsection shall restrict the [bank] Connecticut Green Bank from
79 modifying the approved incentive schedule [before the issuance of its

80 next comprehensive plan] to account for changes in federal or state law
81 or regulation or developments in the solar market when such changes
82 would affect the expected return on investment for a typical residential
83 solar photovoltaic system by twenty per cent or more.

84 [(d)] (e) The Connecticut Green Bank shall establish and periodically
85 update program guidelines, including, but not limited to, requirements
86 for systems and program participants related to: (1) Eligibility criteria;
87 (2) standards for deployment of energy efficient equipment or building
88 practices as a condition for receiving incentive funding; (3) procedures
89 to provide reasonable assurance that such reservations are made and
90 incentives are paid out only to qualifying residential solar photovoltaic
91 systems demonstrating a high likelihood of being installed and
92 operated as indicated in application materials; and (4) reasonable
93 protocols for the measurement and verification of energy production.

94 [(e)] (f) The Connecticut Green Bank shall maintain on its Internet
95 web site the schedule of incentives, solar capacity remaining in the
96 current block and available funding and incentive estimators.

97 [(f)] (g) Funding for the residential performance-based incentive
98 program and expected performance-based buydowns [shall be
99 apportioned from] (1) may include up to one-third of the moneys
100 collected annually under the surcharge specified in section 16-245n; [,
101 provided such apportionment shall not exceed one-third of the total
102 surcharge collected annually,] (2) may include revenue from the solar
103 home renewable energy credit program; and (3) may be supplemented
104 by federal funding as may become available.

105 [(g)] (h) The Connecticut Green Bank shall identify barriers to the
106 development of a permanent Connecticut-based solar workforce and
107 shall make provision for comprehensive training, accreditation and
108 certification programs through institutions and individuals accredited
109 and certified to national standards.

110 (i) The Public Utilities Regulatory Authority shall provide an
111 additional incentive of up to five per cent of the then-applicable

112 incentive provided pursuant to this section for the use of major system
113 components manufactured or assembled in Connecticut, and another
114 additional incentive of up to five per cent of the then-applicable
115 incentive provided pursuant to this section for the use of major system
116 components manufactured or assembled in a distressed municipality,
117 as defined in section 32-9p, or a targeted investment community, as
118 defined in section 32-222.

119 [(h)] (j) On or before January 1, [2014] 2017, and every two years
120 thereafter for the duration of the program, the Connecticut Green Bank
121 shall report to the joint standing committee of the General Assembly
122 having cognizance of matters relating to energy on progress toward
123 the goals identified in subsection [(a)] (b) of this section.

124 Sec. 2. Section 16-245gg of the general statutes is repealed and the
125 following is substituted in lieu thereof (*Effective from passage*):

126 [The Public Utilities Regulatory Authority shall provide an
127 additional incentive of up to five per cent of the then-applicable
128 incentive provided pursuant to section 16-245ff for the use of major
129 system components manufactured or assembled in Connecticut, and
130 another additional incentive of up to five per cent of the then-
131 applicable incentive provided pursuant to section 16-245ff for the use
132 of major system components manufactured or assembled in a
133 distressed municipality, as defined in section 32-9p, or a targeted
134 investment community, as defined in section 32-222.]

135 (a) Not later than one hundred eighty days after July 1, 2015, the
136 Connecticut Green Bank shall negotiate and develop a master
137 purchase agreement with each electric distribution company. Each
138 such agreement shall have a term of fifteen years, and require the
139 electric distribution company to purchase solar home renewable
140 energy credits produced by qualifying residential solar photovoltaic
141 systems.

142 (b) Solar home renewable energy credits shall be owned by the
143 Connecticut Green Bank, until transferred to an electric distribution

144 company pursuant to a master purchase agreement in accordance with
145 subsection (a) of this section. A solar home renewable energy credit
146 shall have an effective life covering the year of its production and the
147 following calendar year. The obligation of the electric distribution
148 companies to purchase solar home renewable energy credits pursuant
149 to the master purchase agreement shall be apportioned to electric
150 distribution companies based on their respective distribution system
151 loads at the commencement of the master purchase agreement period,
152 as determined by the authority.

153 (c) Notwithstanding subdivision (1) of subsection (h) of section 16-
154 244c, an electric distribution company may retire the solar home
155 renewable energy credits it procures through the master purchase
156 agreement to satisfy its obligation pursuant to section 16-245a.

157 (d) To develop a master purchase agreement, the Connecticut Green
158 Bank and an electric distribution company shall negotiate in good faith
159 the final terms of the draft master purchase agreement. Thirty days
160 after the date negotiations commence, either the Connecticut Green
161 Bank or an electric distribution company may initiate a docket
162 proceeding before the Public Utilities Regulatory Authority to resolve
163 any outstanding issues pertaining to the master purchase agreement.

164 (e) Upon completion of negotiations on a master purchase
165 agreement the Connecticut Green Bank and the electric distribution
166 company shall not later than January 1, 2016, jointly file, with the
167 authority, an application for approval of the agreement by the
168 authority. No such master purchase agreement may become effective
169 without approval of the authority. The authority shall hold an
170 uncontested case, in accordance with the provisions of chapter 54, to
171 approve, reject or modify an application for approval of the master
172 purchase agreement.

173 (f) The purchase price of solar home renewable energy credits shall
174 be determined by the Connecticut Green Bank and shall not exceed the
175 lesser of the price of small zero-emission renewable energy credit
176 projects for the preceding year or the alternative compliance payment

177 pursuant to subsection (k) of section 16-245.

178 (g) Electric distribution companies shall be entitled to recover
 179 reasonable costs and fees prudently incurred while complying with the
 180 master purchase agreement through a reconciling component of
 181 electric rates as determined by the authority. Nothing in this section
 182 shall preclude the resale or other disposition of energy or associated
 183 renewable energy credits purchased by an electric distribution
 184 company, provided the electric distribution company shall net the cost
 185 of payments made to projects under the master purchase agreement
 186 against the proceeds of the sale of energy or renewable energy credits
 187 and the difference shall be credited or charged to electric distribution
 188 company customers through a reconciling component of electric rates
 189 as determined by the authority that is nonbypassable when switching
 190 electric suppliers.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>from passage</i>	16-245ff
Sec. 2	<i>from passage</i>	16-245gg

ET *Joint Favorable*

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:*** None***Municipal Impact:*** None***Explanation***

The bill expands the Connecticut Green Bank's residential solar investment program. The Connecticut Green Bank is a quasi-public state agency which does not currently receive state funding. The program is not estimated to have a fiscal impact to the state or municipalities as ratepayers.

The Out Years***State Impact:*** None***Municipal Impact:*** None

OLR Bill Analysis**HB 6838*****AN ACT CONCERNING THE ENCOURAGEMENT OF LOCAL ECONOMIC DEVELOPMENT AND ACCESS TO RESIDENTIAL RENEWABLE ENERGY.*****SUMMARY:**

This bill expands the Connecticut Green Bank's residential solar investment program by, among other things:

1. requiring it to provide 300 megawatts (MW), instead of 30 MW, of new residential solar photovoltaic (PV) installations by the end of 2022;
2. creating solar home renewable energy credits (SHRECs) which are owned by the Green Bank and generated when certain residential PV systems produce electricity;
3. requiring the electric distribution companies (EDCs, i.e., Eversource and United Illuminating) to purchase SHRECs from the Green Bank under a master purchase agreement negotiated between each EDC and the Green Bank;
4. expanding the program's funding sources to include proceeds from the Green Bank's sale of SHRECs to the EDCs; and
5. allowing the EDCs to recover their costs for purchasing the SHRECs through a reconciling (adjustable) component of their electric rates, as determined by the Public Utilities Regulatory Authority (PURA).

The bill also makes several minor, technical, and conforming changes.

EFFECTIVE DATE: Upon passage

THE RESIDENTIAL SOLAR INVESTMENT PROGRAM

By law, the Green Bank's residential solar investment program offers financial incentives for purchasing or leasing certain residential solar PV systems. The incentives are either (1) performance-based incentives that are paid out on a per kilowatt-hour (kWh) basis for the electricity the system produces or (2) expected performance-based buy downs that are a one-time upfront payment based on the system's expected performance.

Current law provides these incentives for "qualifying residential solar PV systems." The bill specifies that these systems are solar PV projects that (1) receive funding from the Green Bank, (2) are certified by PURA as a Class I renewable energy source, (3) emit no pollutants, (4) generate less than 20 kilowatts, (5) are on the customer-side of a one- to-four-family home's revenue meter, and (6) serve an EDC's distribution system.

The law allows the Green Bank to fund the program with up to one-third of the funds annually collected through the charge on electric bills that supports the Clean Energy Fund, plus any available federal funding. The bill allows the bank to also fund the program with the revenue it receives from the sale of SHRECs, which the bill creates.

Current law requires the renewable energy produced from a program's PV systems to be applied toward the EDCs' renewable portfolio standard requirements (RPS, a requirement to use a certain portion of renewable energy) if it receives tariff payments or is included in utility rates. The bill eliminates this requirement and instead allows EDCs to retire the SHRECS they must purchase under the bill to satisfy its RPS requirements. (The bill eliminates, upon passage, the requirement for electricity generated by the program's PV systems to count toward the EDCs' RPS; however, the EDCs will not be able to use the SHRECs for their RPS requirement until after the master purchasing agreement is implemented and they begin purchasing them from the Green Bank.)

The bill also eliminates a provision in current law that prohibits customers who receive the program's performance-based buy down from receiving net metering credits (i.e. billing credits that allow a customer to "run their meter backwards" based on how much excess electricity their PV system generates).

The bill requires the Green Bank to publish a proposed schedule for offering program incentives on its website, instead of in its biannual comprehensive plan. It also eliminates a requirement for the Department of Energy and Environmental Protection to review and approve the schedule. Current law requires the incentives to meet a consumer's reasonable payback expectations. The bill instead requires the incentives to provide the consumer with a competitive electricity price and adds the cost of financing the system to the various other factors the bank must consider when setting the incentives (e.g., the value of energy offset by the system and the availability and value of other incentives).

The bill also extends, from January 1, 2016 to January 1, 2017, the deadline for the Green Bank's next biannually required report to the Energy Committee on the program's progress.

SOLAR HOME RENEWABLE ENERGY CREDITS

The bill creates SHRECs, which are renewable energy credits created for each megawatt hour of electricity produced by qualifying residential solar PV systems that receive approved incentives from the Green Bank on or after January 1, 2015. A SHREC has an effective life that covers the year it was produced and the next calendar year. It is owned by the Green Bank until it is transferred to an EDC under the master purchase agreement. The Green Bank must determine the purchase price for SHRECs, which cannot exceed the lesser of (1) the preceding year's price for small Z-RECs (a similar renewable energy credit produced by certain zero-emission facilities) or (2) the RPS alternative compliance payment (the 5.5 cents/kWh penalty for failing to meet RPS requirements).

Master Purchase Agreement

The bill requires the Green Bank, within 180 days after July 1, 2015, to negotiate and develop a 15-year master purchase agreement with each EDC that requires the EDC to purchase the bank's SCHRECs. Each EDC's obligation to purchase SHRECs must be apportioned based on its distribution system's demand for electricity, as determined by PURA, when the agreement begins.

The bill requires the Green Bank and EDCs to negotiate in good faith to develop the agreement. If there are any outstanding issues 30 days after the negotiations start, either party may initiate a docket with PURA to resolve the issues. Once the negotiations are complete, the Green Bank and EDCs must, by January 1, 2016, jointly file the agreement for approval by PURA. PURA must hold an uncontested case to approve, reject, or modify the agreement, which cannot become effective without PURA's approval. (The bill does not specify what criteria PURA must use to approve, reject, or modify an agreement.)

EDC Cost Recovery

The bill allows the EDCs to recover the reasonable costs and fees they prudently incurred while complying with the master service agreement through a PURA-determined reconciling component of their electric rates. The EDCs can resell or dispose of the energy or credits they purchased under the agreement, but the proceeds from the sale must be netted against their costs for complying with the agreement. The difference must be credited or charged to the EDC's customers through a PURA-determined reconciling component of their electric rates that cannot be bypassed by switching electric suppliers.

COMMITTEE ACTION

Energy and Technology Committee

Joint Favorable

Yea 15 Nay 8 (03/24/2015)