



General Assembly

Substitute Bill No. 6635

January Session, 2009

* HB06635ET 031909 *

AN ACT CONCERNING SOLAR POWER.

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

1 Section 1. (NEW) (*Effective from passage*) (a) Any residential solar
2 photovoltaic direct incentive program administered by the Renewable
3 Energy Investment Fund shall be structured and implemented
4 pursuant to this section and shall result in a minimum of thirty-five
5 megawatts of new residential solar photovoltaic installations by
6 December 31, 2021.

7 (b) The Renewable Energy Investment Fund shall offer direct
8 financial incentives, in the form of performance-based incentives or
9 expected performance-based buydowns, for the purchase or lease of
10 qualifying residential solar photovoltaic systems. For the purposes of
11 this section, "performance-based incentives" means incentives paid out
12 on a per kilowatt-hour basis, and "expected performance-based
13 buydowns" means incentives paid out as a one-time upfront incentive
14 based on expected system performance. The Renewable Energy
15 Investments Board shall consider verified solar system characteristics,
16 such as operational efficiency, size, location, shading and orientation,
17 when determining the type of incentive.

18 (c) On or before January 1, 2010, the Renewable Energy Investment
19 Fund shall develop and publish a proposed schedule for the offering of
20 performance-based incentives and expected performance-based

21 buydowns over the duration of any such solar incentive program. Such
22 schedule shall: (1) Provide for no fewer than eight blocks and
23 associated solar capacity and incentive levels; (2) provide incentives
24 that decline over time and will foster the sustained and orderly
25 development of a state-based solar industry; (3) automatically adjust to
26 the next block once the Renewable Energy Investment Fund has issued
27 rebate reservations fully committing the target solar capacity and
28 available incentives in that block; and (4) provide comparable
29 economic incentives for the purchase or lease of qualifying residential
30 solar photovoltaic systems. The Renewable Energy Investment Fund
31 shall determine whether to establish a uniform state-wide incentive
32 schedule or separate incentive schedules for each electric distribution
33 company service territory and shall retain the services of a third-party
34 entity with expertise in the area of solar energy program design to
35 assist in the development of the incentive schedule or schedules. The
36 Renewable Energy Investment Fund shall hold public hearings on the
37 proposed incentive schedule at no fewer than three locations in the
38 state. In adopting the final incentive schedule, the Renewable Energy
39 Investment Fund shall summarize comments it receives from the
40 public and its disposition thereon.

41 (d) The Renewable Energy Investment Fund shall establish and
42 periodically update eligibility criteria, including, but not limited to,
43 requirements related to: (1) Participating customers, (2) equipment
44 sizing and technical specifications, (3) installation standards, (4) energy
45 efficiency conditions, (5) equipment warranties, (6) performance, and
46 (7) relocation of equipment. Such eligibility criteria shall not
47 unreasonably restrict the host's ability to designate a third-party
48 developer, system owner or installer as the recipient of the incentive
49 award.

50 (e) The Renewable Energy Investment Fund shall establish
51 procedures to provide reasonable assurance that rebate reservations
52 are made and incentives are paid out only to qualifying residential
53 solar photovoltaic systems demonstrating a high likelihood of being
54 installed and operated as indicated in application materials. The

55 Renewable Energy Investment Fund shall establish a dispute
56 resolution process and may establish and implement, among other
57 procedures: (1) Nonrefundable application fees or performance bonds;
58 (2) performance milestones; (3) deadlines for project completion and
59 relinquishment of position in an incentive queue; or (4) postinstallation
60 adjustment or denial of performance-based incentives.

61 (f) To meet program targets, any unclaimed incentive reservations
62 shall be promptly restored to the then applicable block and made
63 available to be claimed by other applicants.

64 (g) The Renewable Energy Investment Fund shall maintain on its
65 web site an up-to-date status of the amount of incentives and solar
66 capacity remaining in the current block. The web site shall include
67 other information and tools to educate residential electricity users on
68 solar energy use and facilitate their participation in the Renewable
69 Energy Investment Fund's program by providing on-line application
70 forms, current program guidelines and incentive estimators.

71 (h) Funding for the residential performance-based incentive
72 program shall be apportioned from the moneys collected under the
73 surcharge specified in section 16-245n of the general statutes.

74 Sec. 2. (NEW) (*Effective from passage*) (a) Notwithstanding the
75 provisions of any previously approved resource procurement plan
76 adopted pursuant to the general statutes, commencing on July 1, 2010,
77 and within a period of five years thereafter, each electric distribution
78 company shall solicit proposals and, provided reasonable proposals
79 have been received, file with the Department of Public Utility Control
80 for its approval, one or more long-term power purchase contracts with
81 owners or developers of customer-sited, nonresidential solar
82 photovoltaic generation projects less than two thousand kilowatts in
83 size, located on the customer side of the revenue meter, and connected
84 to the distribution system of the electric distribution company. For
85 purposes of this subsection, "nonresidential" shall include all utility
86 retail rate classes with the exception of single-family residences and

87 individual apartments qualifying for residential electric service.

88 (b) Solicitations conducted by the electric distribution company
89 shall be for the purchase of solar renewable energy credits produced
90 by eligible nonresidential, customer-sited solar photovoltaic generating
91 projects over the duration of the long-term contract. For purposes of
92 this section, a long-term contract is a contract for a minimum of fifteen
93 years. The electric distribution company may solicit proposals for a
94 combination of renewable energy and associated solar renewable
95 energy credits.

96 (c) The aggregate procurement of solar renewable energy credits by
97 electric distribution companies pursuant to this section shall be no less
98 than three million one hundred ninety-one thousand two hundred
99 fifty. The production of a megawatt hour of electricity from a Class I
100 solar renewable energy source first placed in service on or after the
101 effective date of this section shall create one solar renewable energy
102 credit. The obligation to purchase solar renewable energy credits shall
103 be apportioned to electric distribution companies based on their
104 respective distribution system loads at the commencement of the
105 procurement period, as determined by the department.

106 (d) For contracts entered into on or before July 1, 2010, an electric
107 distribution company shall not be obligated to consider or enter into
108 proposed long-term solar renewable energy credit contracts that
109 exceed six hundred fifty dollars per megawatt hour in the initial year
110 of the procurement period, declining by seven per cent annually.

111 (e) An electric distribution company may retire the solar renewable
112 energy credits it procures through long-term contracting to satisfy its
113 obligation pursuant to section 16-245a of the general statutes.

114 (f) Nothing in this section shall preclude the resale or other
115 disposition of energy or associated solar renewable energy credits
116 purchased by the electric distribution company, provided the
117 distribution company shall net the cost of payments made to projects
118 under the long-term contracts against the proceeds of the sale of

119 energy or solar renewable energy credits and the difference shall be
120 credited or charged to distribution customers through a uniform fully
121 reconciling factor in distribution rates, subject to review and approval
122 by the department.

123 Sec. 3. (NEW) (*Effective from passage*) (a) Each electric distribution
124 company shall, not later than one hundred eighty days after the
125 effective date of this section, propose a solar solicitation plan that shall
126 include a timetable and methodology for soliciting proposals for long-
127 term solar renewable energy credits or energy contracts. The
128 distribution company's solar solicitation plan shall be subject to review
129 and approval of the department, provided contracts comprising no less
130 than twenty-five per cent of the electric distribution company's
131 obligation shall be submitted for department approval on or before
132 January 1, 2011, and no less than seventy-five per cent of such
133 obligation shall be submitted for such approval on or before July 1,
134 2013.

135 (b) The electric distribution company's approved solar solicitation
136 plan shall be designed to foster a diversity of solar project sizes and
137 participation among all customer classes subject to cost-effectiveness
138 considerations. Separate procurement processes shall be conducted for
139 nonresidential systems between ten kilowatts and fifty kilowatts and
140 for nonresidential systems between fifty-one kilowatts and two
141 thousand kilowatts. The department shall give preference to
142 competitive bidding for resources of more than fifty kilowatts, unless
143 the department determines that an alternative methodology is in the
144 best interests of the distribution company's customers and the
145 development of a competitive and self-sustaining solar market.
146 Systems less than fifty-one kilowatts shall be eligible to receive a
147 standard offer solar renewable energy credit price equivalent to the
148 highest accepted bid price in the most recent large system solicitation,
149 plus an additional incentive of up to ten per cent as the department
150 deems necessary to elicit proposals from this market segment.

151 (c) Each electric distribution company shall execute its approved

152 solicitation plan and submit for department review and approval its
153 preferred solar procurement plan comprised of any proposed contract
154 or contracts with independent solar developers or utility affiliates and,
155 where applicable, utility proposals to develop solar projects as a rate-
156 based investment. If applicable, an independent auditor shall conduct
157 an audit of the electric distribution company's bid solicitation and
158 evaluation process to ensure that it comports with the standards set
159 forth in subsection (e) of this section. For purposes of such audit, the
160 electric distribution company shall provide the independent auditor
161 immediate and continuing access to all documents and data reviewed,
162 used or produced by the electric distribution company in its bid
163 solicitation and evaluation process. The electric distribution company
164 shall make all its personnel, agents and contractors used in the bid
165 solicitation and evaluation available for interview by the auditor. The
166 electric distribution company shall conduct any additional modeling
167 requested by the independent auditor to test the assumptions and
168 results of the bid evaluation process. Not later than sixty days after the
169 electric distribution company's selection of solar resources, the
170 independent auditor shall file a report with the department containing
171 the auditor's findings, with any deficiencies specifically reported.

172 (d) The department shall hold a hearing that shall be conducted as a
173 contested case, in accordance with the provisions of chapter 54 of the
174 general statutes, to approve, reject or modify an application for
175 approval of the electric distribution company's solar procurement
176 plan. The department shall only approve such plan if the department
177 finds that (1) the solicitation and evaluation conducted by the electric
178 distribution company was the result of a fair, open, competitive and
179 transparent process; (2) approval of the solar procurement plan would
180 result in the lowest reasonable cost of solar energy or solar renewable
181 energy credits; and (3) such procurement plan satisfies other criteria
182 established in the approved solicitation plan. Where the electric
183 distribution company has proposed to develop and rate-base,
184 customer-sited solar facilities, the department shall additionally
185 determine that such investment will not restrict competition or restrict

186 growth in the state's solar energy industry or unfairly employ in a
187 manner which would restrict competition in the market for solar
188 energy systems any financial, marketing, distributing or generating
189 advantage that the electric distribution company may exercise as a
190 result of its authority to operate as a public service company. The
191 department may, at its discretion, retain the services of an independent
192 auditor with expertise in the area of energy procurement. The
193 independent auditor shall be unaffiliated with the electric distribution
194 company or its affiliates and shall not, directly or indirectly, have
195 benefited from employment or contracts with the electric distribution
196 company or its affiliates in the preceding five years, except as an
197 independent auditor. The independent auditor shall not participate in
198 or advise the electric distribution company with respect to any
199 decisions in the bid solicitation or bid evaluation process. The
200 department's administrative costs in reviewing the electric distribution
201 company's solar procurement plan shall be recovered in rates.

202 (e) The electric distribution company shall be entitled to recover its
203 reasonable costs of complying with its approved solar procurement
204 plan.

205 (f) When the department authorizes the electric distribution
206 company to enter into a contract or contracts pursuant to subsection
207 (d) of this section, the department shall also provide for a
208 remuneration to the electric distribution company equal to four per
209 cent of the annual payments under the contract to compensate the
210 company for accepting the financial obligation of the long-term
211 contract, provided such remuneration shall not be considered as a cost
212 of procuring solar resources from unaffiliated developers for purposes
213 of bid evaluation.

214 Sec. 4. (*Effective July 1, 2009*) (a) For the purposes described in
215 subsection (b) of this section, the State Bond Commission shall have
216 the power, from time to time, to authorize the issuance of bonds of the
217 state in one or more series and in principal amounts not exceeding in
218 the aggregate one hundred fifty million dollars.

219 (b) The proceeds of the sale of said bonds, to the extent of the
220 amount stated in subsection (a) of this section, shall be used by the
221 Department of Public Works for the purpose of funding projects
222 pursuant to section 5 of this act.

223 (c) All provisions of section 3-20 of the general statutes, or the
224 exercise of any right or power granted thereby, which are not
225 inconsistent with the provisions of this section are hereby adopted and
226 shall apply to all bonds authorized by the State Bond Commission
227 pursuant to this section, and temporary notes in anticipation of the
228 money to be derived from the sale of any such bonds so authorized
229 may be issued in accordance with said section 3-20 and from time to
230 time renewed. Such bonds shall mature at such time or times not
231 exceeding twenty years from their respective dates as may be provided
232 in or pursuant to the resolution or resolutions of the State Bond
233 Commission authorizing such bonds. None of said bonds shall be
234 authorized except upon a finding by the State Bond Commission that
235 there has been filed with it a request for such authorization which is
236 signed by or on behalf of the Secretary of the Office of Policy and
237 Management and states such terms and conditions as said commission,
238 in its discretion, may require. Said bonds issued pursuant to this
239 section shall be general obligations of the state and the full faith and
240 credit of the state of Connecticut are pledged for the payment of the
241 principal of and interest on said bonds as the same become due, and
242 accordingly and as part of the contract of the state with the holders of
243 said bonds, appropriation of all amounts necessary for punctual
244 payment of such principal and interest is hereby made, and the State
245 Treasurer shall pay such principal and interest as the same become
246 due.

247 Sec. 5. (NEW) (*Effective from passage*) (a) On or before July 1, 2010,
248 the Renewable Energy Investment Fund, in consultation with the
249 Department of Public Works, shall complete, or cause to be completed,
250 a comprehensive solar feasibility survey of facilities owned or operated
251 by the state with a load of fifty kilowatts, or more. The survey shall
252 rank state-owned and operated facilities based on their technical

253 feasibility to accommodate solar photovoltaic generating systems by
254 considering such factors as: (1) On-site energy consumption; (2)
255 building orientation; (3) roof age and condition; (4) shading and the
256 potential for obstruction to sunlight over the life of the solar system; (5)
257 structural load capacity; (6) availability of ancillary facilities, such as
258 parking lots, walkways or maintenance areas; (7) nonenergy related
259 amenities; and (8) other factors that the Renewable Energy Investment
260 Fund deems may bear on the technical feasibility of such solar
261 deployment.

262 (b) The Department of Public Works, in consultation with the
263 Renewable Energy Investment Fund, shall issue one or more requests
264 for proposals for the deployment of solar photovoltaic generating
265 systems at state-owned or operated facilities. Any such request for
266 proposals shall be structured to maximize the state's ability to secure
267 incentives available from the federal government or other sources. The
268 department may seek in any request for proposals the services of an
269 entity to finance, design, construct, own or maintain such solar
270 photovoltaic system under a long-term solar services agreement. Any
271 such entity chosen to provide such services shall not be considered a
272 public service company under section 16-1 of the general statutes.

273 (c) Any contract entered into between the department and an entity
274 pursuant to subsection (b) of this section shall require that the state
275 retain full title to any renewable energy credit or other tradable
276 certificate reflecting the environmental attributes of the electricity
277 created by the solar photovoltaic generating system over the life of the
278 system. The state shall retire any renewable energy credit or tradable
279 certificate so created.

280 Sec. 6. Section 16-243h of the general statutes is repealed and the
281 following is substituted in lieu thereof (*Effective from passage*):

282 (a) On and after January 1, 2000, each electric supplier or any electric
283 distribution company providing standard offer, transitional standard
284 offer, standard service or back-up electric generation service, pursuant

285 to section 16-244c, shall give a credit for any electricity generated by a
286 customer from a Class I renewable energy source or a hydropower
287 facility that has a nameplate capacity rating of two megawatts or less.
288 The electric distribution company providing electric distribution
289 services to such a customer shall make such interconnections necessary
290 to accomplish such purpose. An electric distribution company, at the
291 request of any residential customer served by such company and if
292 necessary to implement the provisions of this section, shall provide for
293 the installation of metering equipment that (1) measures electricity
294 consumed by such customer from the facilities of the electric
295 distribution company, (2) deducts from the measurement the amount
296 of electricity produced by the customer and not consumed by the
297 customer, and (3) registers, for each billing period, the net amount of
298 electricity either (A) consumed and produced by the customer, or (B)
299 the net amount of electricity produced by the customer. If, in a given
300 monthly billing period, a customer-generator supplies more electricity
301 to the electric distribution system than the electric distribution
302 company or electric supplier delivers to the customer-generator, the
303 electric distribution company or electric supplier shall credit the
304 customer-generator for the excess by reducing the customer-
305 generator's bill for the next monthly billing period to compensate for
306 the excess electricity from the customer-generator in the previous
307 billing period at a rate of one kilowatt-hour for one kilowatt-hour
308 produced. The electric distribution company or electric supplier shall
309 carry over the credits earned from monthly billing period to monthly
310 billing period, and the credits shall accumulate until the end of the
311 annualized period. At the end of each annualized period, the electric
312 distribution company or electric supplier shall compensate the
313 customer-generator for any excess kilowatt-hours generated, at the
314 avoided cost of wholesale power. A customer who generates electricity
315 from a generating unit with a nameplate capacity of more than ten
316 kilowatts of electricity pursuant to the provisions of this section shall
317 be assessed for the competitive transition assessment, pursuant to
318 section 16-245g and the systems benefits charge, pursuant to section
319 16-245l, based on the amount of electricity consumed by the customer

320 from the facilities of the electric distribution company without netting
321 any electricity produced by the customer. For purposes of this section,
322 "residential customer" means a customer of a single-family dwelling or
323 multifamily dwelling consisting of two to four units.

324 (b) A local governmental authority owning or operating a Class I
325 renewable energy source with a nameplate capacity rating of two
326 megawatts or less may designate one or more beneficial government
327 accounts as the recipient of monthly and annual credits. For purposes
328 of this subsection, (1) "local governmental authority" means a city,
329 town, borough, municipal corporation, public housing authority,
330 school district or special district; and (2) "beneficial government
331 account" means an electricity billing account that is: (A) The
332 responsibility of the local governmental authority, (B) metered
333 separately from the load served by the Class I renewable facility, and
334 (C) within the same distribution company service territory as the Class
335 I renewable facility.

336 (c) A religious, educational or charitable organization exempt from
337 taxation under Section 501(c)(3) of the Internal Revenue Code of 1986,
338 or any subsequent corresponding internal revenue code of the United
339 States, as amended from time to time, owning or operating a Class I
340 renewable energy facility with a nameplate capacity rating of two
341 megawatts or less may designate one or more beneficial member
342 accounts as the recipient of monthly and annual credits. A beneficial
343 member account shall be a member in good standing of the Section
344 501(c)(3) organization who resides or owns a place of business within
345 the same electric distribution company service territory as the Class I
346 renewable facility.

347 (d) The monthly and annual credits under subsections (b) and (c) of
348 this section shall be denominated in dollars and shall be applied
349 irrespective of whether the beneficial account is in the same tariff
350 classification as the metered load of the customer generator site. The
351 electricity produced from the Class I renewable facility shall be netted
352 first against on-site electricity consumption and then against the

353 metered load of beneficial accounts based on a percentage allocation
354 specified by the customer generator. At least sixty days before the
355 Class I renewable facility becoming operational, the customer
356 generator shall notify the electric distribution company, in writing, of
357 designated beneficial accounts. The customer generator may elect to
358 change a beneficial account no more than once annually by providing
359 the electric distribution company with sixty days' written notice of
360 such change. Class I renewable facilities eligible for the net metering
361 arrangement under this section shall be subject to generally applicable
362 interconnection standards but shall not be restricted in design or
363 operation to the usage of the metered load served by the Class I
364 renewable facility. Class I renewable facilities eligible for the net
365 metering arrangement pursuant to this section shall be eligible to earn
366 solar renewable energy credits pursuant to section 2 of this act or other
367 incentives generally available to such facilities.

368 (e) The Renewable Energy Investment Fund shall make available up
369 to ___ million dollars of the municipal renewable energy and efficient
370 energy grant account for the purpose of grants-in-aid to local
371 governmental authorities and tax exempt organizations consistent
372 with the purposes of this section. Nothing in this section shall preclude
373 community solar facilities from eligibility for funding under other
374 programs administered by the Renewable Energy Investment Fund for
375 which the project would otherwise qualify.

376 Sec. 7. (NEW) (*Effective from passage*) (a) Each electric distribution
377 company shall, not later than July 1, 2010, file with the Department of
378 Public Utility Control for its approval a tariff for production-based
379 payments to owners or operators of Class I solar renewable energy
380 source projects that are not less than two megawatts and connected
381 directly to the distribution system of an electric distribution company.

382 (b) Such tariffs shall provide production-based payments for a
383 period of not less than twenty years from the in-service date of the
384 Class I solar renewable energy source project at a price that is, at the
385 determination of the project owner, (1) not more than the total of the

386 comparable wholesale market price for generation, calculated as the
387 average of the hourly and day-ahead locational marginal price over the
388 most recent twenty-four-month period in the applicable NE-ISO load
389 zone, plus eleven cents per kilowatt hour; (2) the NE-ISO's real-time
390 locational marginal pricing rate, adjusted for losses, for the respective
391 zone in the NE-ISO electric power pool, plus eleven cents per kilowatt
392 hour; or (3) not more than the total of the comparable wholesale
393 market price for energy and capacity plus the electric distribution
394 company's full avoided costs of providing standard offer and
395 distribution service. For purposes of this subsection, the department
396 shall determine the distribution company's avoided costs or establish a
397 mechanism to establish the avoided costs on a case-by-case basis. The
398 full avoided costs shall include, but not be limited to: (A) Federally
399 mandated congestion charges; (B) reactive power and other ancillary
400 services; (C) environmental compliance; (D) hedge value; (E) electrical
401 loss savings; (F) deferral or avoidance of distribution system
402 investment; (G) reduced frequency and duration of distribution system
403 outages; and (H) ongoing distribution system maintenance. For
404 purposes of this subsection, the department's determination of the
405 comparable wholesale market price for generation shall be based upon
406 a reasonable estimate.

407 (c) Such tariffs shall include a per project eligibility cap of seven and
408 one-half megawatts and an aggregate eligibility cap of fifty megawatts,
409 apportioned among each electric distribution company in proportion
410 to distribution load.

411 (d) The cost of such tariff payments shall be eligible for inclusion in
412 the adjustment to the transitional standard offer as provided in section
413 16-243h of the general statutes, as amended by this act, and any
414 subsequent rates for standard service, provided such payments are for
415 projects operational on or after the effective date of this section.

416 (e) Electric distribution companies may construct, own and operate
417 solar electric generating facilities up to one-third of their proportional
418 share of the total cap amounts specified under subsection (c) of this

419 section. The department shall authorize the electric distribution
 420 company to recover in rates its costs to construct, own and operate
 421 solar electric generating facilities, including a reasonable return on its
 422 investment, if such approval would result in the lowest reasonable cost
 423 of meeting the solar energy requirements pursuant to subsection (c) of
 424 this section and that such investment will not restrict competition or
 425 restrict growth in the state's solar energy industry or unfairly employ
 426 in a manner which would restrict competition in the market for solar
 427 energy systems any financial, marketing, distributing or generating
 428 advantage that the electric distribution company may exercise as a
 429 result of its authority to operate as a public service company.

430 (f) The amount of renewable energy produced from Class I
 431 renewable energy sources receiving tariff payments or included in
 432 utility rates under this section shall be applied to reduce the electric
 433 distribution company's Class I renewable energy source portfolio
 434 standard. On or before September 1, 2011, the Department of Public
 435 Utility Control, in consultation with the Office of Consumer Counsel
 436 and the Renewable Energy Investments Advisory Council, shall study
 437 the operation of such solar renewable energy tariffs and shall report, in
 438 accordance with the provisions of section 11-4a of the general statutes,
 439 its findings and recommendations to the joint standing committee of
 440 the General Assembly having cognizance of matters relating to energy.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>from passage</i>	New section
Sec. 2	<i>from passage</i>	New section
Sec. 3	<i>from passage</i>	New section
Sec. 4	<i>July 1, 2009</i>	New section
Sec. 5	<i>from passage</i>	New section
Sec. 6	<i>from passage</i>	16-243h
Sec. 7	<i>from passage</i>	New section

ET *Joint Favorable Subst.*