

HOUSE No. 4185

The Commonwealth of Massachusetts

HOUSE OF REPRESENTATIVES, June 18, 2014.

The committee on Telecommunications, Utilities and Energy to whom were referred the petition (accompanied by bill, Senate, No. 2019) of Anthony W. Petruccelli for legislation relative to net metering, petition (accompanied by bill, Senate, No. 2030) of Michael J. Rodrigues for legislation to reduce the cost of solar power through increased competition, petition (accompanied by bill, House, No. 2915) of Thomas J. Calter and others relative to renewable energy portfolio standard requirements, petition (accompanied by bill, House, No. 2928) of Stephen L. DiNatale and others for legislation to authorize the North Central Chamber of Commerce to establish a pilot program for net metering of electricity for manufacturers, petition (accompanied by bill, House, No. 2947) of Bradley H. Jones, Jr. and others relative to the cost of electricity for ratepayers and petition (accompanied by bill, House, No. 3901) of Frank I. Smizik relative to electricity net metering, reports recommending that the accompanying bill (House, No. 4185) ought to pass.

For the committee,

JOHN D. KEENAN.

HOUSE No. 4185

The Commonwealth of Massachusetts

In the Year Two Thousand Fourteen

An Act relative to net metering and solar power.

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

1 SECTION 1. Chapter 25A of the General Laws is hereby amended by inserting after
2 section 11I the following sections:-

3 Section 11J. There shall be a Commonwealth Solar Incentive Program to encourage the
4 development of solar photovoltaic technology by residential, commercial, governmental and
5 industrial electricity customers throughout the Commonwealth. The program shall be structured
6 to achieve a total of 1600 megawatts DC of solar photovoltaic facilities interconnected to the
7 distribution system of a distribution company, as defined in section 1 of chapter 164, by
8 December 31, 2020, which shall be met via the requirements of subsection (g) of section 11F and
9 section 11K. All solar photovoltaic facilities that participate in this program shall be qualified by
10 the department as eligible to participate in the renewable energy portfolio standard program,
11 under said section 11F. The aggregate nameplate capacity of the facilities qualified under 11K
12 shall be equal to 1600 megawatts DC minus the aggregate nameplate capacity of facilities that
13 have qualified and become operational under subsection (g) of section 11F. For the purpose of
14 calculating aggregate capacity, the department shall convert individual project AC nameplate
15 capacity into DC, using a reasonable industry-accepted method.

16 The department, in consultation with the department of public utilities, shall publish an
17 interim report on the progress of the program by January 1, 2018, and a final report on the
18 program within 120 days of qualifying the 1600 megawatts DC. The reports shall assess the solar
19 market in the Commonwealth, quantify the costs and benefits of the program, and offer any
20 policy and program recommendations.

21 Section 11K. Declining Block Solar Incentive Program.

22 (a) As used in this section, the following words shall, unless the context otherwise
23 requires, have the following meanings:—

24 “Bundled solar compensation value”, a tariff-based compensation established under
25 subsection (c) for the energy and non-energy attributes associated with electricity produced by a
26 solar virtual metering facility that shall be a fixed per kilowatt-hour amount over the incentive
27 term. The bundled solar compensation value has two components: (1) solar virtual metering
28 credits, as defined in section 139A of chapter 164; and (2) a residual incentive value, as provided
29 in subsection (e).

30 “Campus solar virtual metering facility”, a facility as defined in section 139A of chapter
31 164.

32 “Community shared solar virtual metering facility”, a facility as defined in section 139A
33 of chapter 164.

34 “Declining Block Value”, a tariff-based compensation established under subsection (c)
35 that is calculated from the total kilowatt-hours produced by an eligible solar generation facility.
36 In the instance of a phase 2 solar net metering facility, it shall be the phase 2 solar incentive; in
37 the instance of a solar virtual metering facility, it shall be the bundled solar compensation value;
38 and, in the instance of a solar merchant generating facility, it shall be the difference between the
39 bundled solar compensation value and the solar virtual metering credit.

40 “Distribution Company”, an entity as defined in section 1 of chapter 164.

41 “Emergency power generating facility”, a phase 2 solar net metering facility as defined in
42 section 139A of chapter 164 that is an integral and material component of an emergency
43 generation system that includes battery storage or other generating equipment and that is
44 configured to provide a material amount of electricity as emergency power for a reasonable
45 period of time during unscheduled power outages to an electric distribution customer.

46 “Low income residential solar virtual metering facility”, a facility as defined in section
47 139A of chapter 164.

48 “Merchant solar generating facility”, a facility for the production of electrical energy that
49 uses sunlight to generate electricity and that is interconnected with an electric distribution system
50 of a distribution company, and that is not a transmission facility, and provided that such facilities
51 shall have a nameplate capacity of less than or equal to 5 megawatts AC as a landfill solar
52 facility, and 2 megawatts AC for all other such facilities, but does not meet the definitions of a
53 Phase 2 solar net metering facility or solar virtual metering facility, as defined in section 139A of
54 chapter 164, or meets the definition of a virtual metering facility but opts out of treatment as
55 such.

56 “Phase 2 solar incentive”, a tariff-based compensation for the non-energy attributes
57 associated with electricity produced by a phase 2 solar net metering facility that shall be a fixed
58 per kilowatt-hour amount over the incentive term, and is independent of and paid separately from
59 phase 2 solar net metering credits.

60 “Phase 2 solar net metering facility”, a facility as defined in section 139A of chapter 164.

61

62 “Private entity solar virtual metering facility”, a facility as defined in section 139A of
63 chapter 164.

64 “Program”, the Declining Block Solar Incentive Program as created in this section.

65 “Solar virtual metering credit”, as defined in section 139A of chapter 164.

66 “Solar virtual metering facility”, a facility as defined in section 139A of chapter 164.

67 (b) The declining block solar incentive program shall be a statewide program
68 implemented by all distribution companies pursuant to tariffs approved by the department of
69 public utilities. The declining block solar incentive program shall include: (1) a schedule of
70 standard, declining block values to be offered by each distribution company to eligible solar
71 generating facilities over the duration of the program; (2) a series of steps, with associated
72 nameplate capacity, target subscription periods, and declining block values that decline from step
73 to step; (4) automatic opening of the next step as soon as the nameplate capacity and available
74 incentives for an open step are fully committed or reserved; and (5) a set aside that reserves a
75 reasonable amount of incentive program capacity for eligible generators up to 25 kW in
76 nameplate capacity. The declining block solar incentive program shall ensure that the
77 developers, owners, investors, customers, and lenders of the solar generation projects receive
78 incentives to facilitate the financing of eligible solar facilities. Proponents of such facilities shall
79 rely on such incentives for the entire term of the applicable tariff.

80 (c) The department shall develop declining block values that shall be reviewed and
81 approved by the department of public utilities. In developing such declining block values, the
82 department shall seek to approximate the requisite incentive levels that would be elicited through
83 competitive procurement while ensuring market diversity, and fostering the sustained and orderly
84 development of a state-based solar industry. Declining block values for a facility shall not be
85 reduced once such solar facility has qualified under the terms of the applicable tariff.

86 Initial declining block values shall provide sufficient revenue to support the economic
87 viability of solar generating facilities. Declining block values shall reflect the technical and
88 economic characteristics of typical solar generating facilities that serve distinct solar market
89 segments and customer classes, and shall take into account such factors as: (1) project nameplate
90 capacity and expected performance; (2) current capacity-weighted mean installed cost by

91 relevant nameplate capacity categories to construct new solar generating facilities in the
92 Commonwealth and other states in ISO-NE, with reasonable adjustments for varying costs of
93 construction in different locations; (3) ongoing operation and maintenance costs; (4) finance
94 costs, including a risk-appropriate cost of debt and return on equity, and capital structure (debt-
95 to-equity ratio), taking into account the stability of the tariff payments and the market pricing of
96 investments with a similar value volatility and income-risk profile on a pre-tax basis; (5) local,
97 state and federal taxes and fees; (6) expected values from solar net metering credits or solar
98 virtual metering credits pursuant to section 139A of chapter 164; (7) any federal or state
99 incentives, including tax incentives, in addition to the program; (8) customers' reasonable
100 payback expectations; (9) data from competitive solicitations for bundled output or attributes and
101 output in other jurisdictions for similar systems that become operational; and (10) other factors,
102 as appropriate. The department may further adjust declining block values to encourage solar
103 development in the following categories or further the following objectives: solar virtual
104 metering facility of a municipal or other governmental entity, as defined by said section 139A of
105 said chapter 164; low income residential solar virtual metering facility, with any adjustment
106 designed to preserve hedge value; geographically targeted areas of the distribution system as
107 determined by a distribution company; and emergency power generating facility.

108 (d) The program shall be structured as a single unified statewide program such that
109 each program step shall comprise the aggregate solar capacity available across all distribution
110 companies and market segments, except for any set aside as may be provided pursuant to clause
111 5 of subsection (b) and that any solar capacity reserved or enrolled in a step shall be applied
112 against available aggregate capacity in that step irrespective of distribution company service
113 territory or market segment , provided however, that declining block values within the step may
114 be differentiated pursuant to (c).

115 (e) The program shall provide incentive payments for phase 2 solar net metering
116 facilities, solar virtual metering facilities, and merchant solar generating facilities:

117 (1) For a phase 2 solar net metering facility, the incentive shall be the phase 2 solar
118 incentive.

119 (2) For a solar virtual metering facility, the incentive portion of the bundled solar
120 compensation value shall be calculated as the difference between the declining block value and
121 the solar virtual metering credit at all relevant intervals over the incentive term. For purposes of
122 this section, and notwithstanding section 139A of chapter 164, for any interval during which the
123 value of the solar virtual metering credits exceeds the declining block value, the solar virtual
124 metering credit shall be adjusted to equal the declining block value. Upon the written request of
125 the customer of record, as defined in section 139A of chapter 164, a facility may terminate its
126 participation in the program. This will be a one-time election. Once the customer of record
127 makes this election, the facility will no longer be eligible for net metering, virtual metering, or
128 any incentives under the program.

129 (3) For any merchant solar generating facility, the incentive shall be the difference
130 between the bundled solar compensation value and a recent representative twelve month average
131 solar virtual metering credit. Once established, the incentive for a merchant solar generating
132 facility shall remain fixed over the incentive term. For sake of clarity, the incentive payment
133 shall be determined independently and provided separately from any payments the merchant
134 solar generating facility receives for the sale of electricity pursuant to the provisions of the
135 Federal Power Act, the Public Utility Regulatory Policies Act of 1978, and 18 U.S.C. § 292.301,
136 governing small power production facilities.

137 (f) The program shall include a mechanism to automatically adjust declining block
138 values under subsection (c) in subsequent steps if a step enrolls faster or more slowly than what
139 is targeted pursuant to subsection (b). When reservations and enrollments in the program reach
140 50 percent of total program capacity as specified in section 11J, the department shall review the
141 remaining steps and incentive levels in light of any unanticipated changes in the underlying
142 economic, technical or regulatory conditions, and recommend to the department of public
143 utilities adjustments, if any, necessary to address excessive or inadequate incentives if the
144 applicable incentive levels continue. Any changes prescribed in any order by the department of
145 public utilities, after notice and opportunity for public comment, shall apply prospectively to
146 future incentive steps and shall not result in any adjustment to the current step, provided however
147 that in no event shall any such change be effective sooner than six months from the date of such
148 order, and in no event shall such change apply to existing customers that are enrolled or have
149 obtained reservations.

150 (g) The incentive provided under the declining block program shall be available for a
151 15 year term, measured from the initial date of commercial operation, provided however, that the
152 department may propose a term of not less than 10 years for phase 2 solar net metering facilities
153 with a nameplate capacity of 25 kW AC or less as part of its filing pursuant to subsection (b).

154 (h) The department shall include with its filing pursuant to subsection (c) eligibility
155 criteria for the program, including but not limited to requirements for: (1) participating
156 customers; (2) nameplate capacity and technical specifications; (3) installation standards; (4)
157 equipment warranties; (5) performance; and (6) relocation of equipment. Such eligibility criteria
158 shall not unreasonably restrict the assignment of the incentive to a developer, a system owner, or
159 an installer. The tariffs shall establish a dispute resolution process. Each applicant who seeks
160 eligibility for incentives via the program shall provide documentation to demonstrate eligibility.
161 The department shall develop and propose a reasonable method of documenting and
162 demonstrating such eligibility requirements, including a method to document and demonstrate
163 that recipients of solar virtual metering credits meet the eligibility requirements. The
164 department, in consultation with the electric distribution companies, shall propose a single,
165 independent entity to receive and review the documentation to determine eligibility for all
166 applicants. The eligibility process shall include a dispute resolution procedure for applicants and
167 distribution companies as approved by the department.

168 (i) The department shall establish a system for solar facilities to obtain reservations
169 of capacity in a step that provides a reasonable assurance that reservations are approved only for
170 solar facilities that can demonstrate a high likelihood of being installed and operated as
171 proposed. In developing this system, the department shall consider procedures to meet this
172 objective such as: (1) non-refundable reservation fees or performance bonds; (2) performance
173 milestones; and (3) deadlines for project completion and, if missed, procedures for relinquishing
174 reservations of capacity. The department shall establish a common procedure for restoring
175 capacity into program steps upon the relinquishment or reduction of a facility's capacity
176 reservation. The department shall consider the differences among market segments when
177 establishing the system and these procedures. Such a system may be established in coordination
178 with any similar systems established under sections 139 or 139A of chapter 164.

179

180 (j) Funding of the incentives under the tariff-based program be shared
181 proportionately among distribution companies in a manner that reasonably approximates the load
182 ratio share of each distribution company, through the following process:

183 (1) During the fourth year of the program and every three years thereafter, upon a
184 joint petition of the distribution companies, the department of public utilities shall review the
185 amount of incentives paid out by each distribution company, net of the market value of any
186 renewable attributes obtained by each distribution company under their respective solar incentive
187 tariffs. To the extent that any distribution company and its distribution customers are bearing
188 more than a proportionate share of the statewide net incentives as measured against a threshold
189 above the load ratio share of the distribution company as of the then current year applied to the
190 statewide net incentives, over a representative period of the operation of the program, the
191 department of public utilities shall authorize an adjustment to the mandatory renewables charge
192 established under section 20 of chapter 25 to reflect a reapportionment of the amount of such net
193 incentives through each distribution company's contribution to the Massachusetts Renewable
194 Energy Trust Fund. Any amounts associated with the adjustment to the mandatory renewable
195 charge shall be excluded by the distribution company from the rate recovery mechanism defined
196 in section 94K of chapter 164, and amounts forming the basis of the adjustment shall be
197 established such that the Massachusetts Renewable Energy Trust Fund remains fully funded as
198 intended under chapter 25.

199

200 (2) For purposes of determining the amount of the distribution company's actual net
201 incentives that vary from that calculated on the basis of load ratio share, a threshold shall be used
202 as follows: to the extent an distribution company's share of costs exceeds a threshold equal to its
203 load ratio share multiplied by 1.10, an adjustment to the mandatory renewables charge shall be
204 implemented. To the extent the share of costs for a given distribution company is at or below the

205 threshold, no adjustment shall be required. Any adjustment shall be calculated and approved by
206 the department using company-specific net incentives above the threshold and company-specific
207 kilowatt-hour sales. If only one distribution company is so affected, the amount shall be
208 allocated to the other distribution companies based on their respective kilowatt-hour sales. The
209 adjustment to the mandatory renewables charge shall be prospective only.

210 (k) Phase 2 solar net metering facilities, solar virtual metering facilities, and merchant
211 generating facilities receiving incentives under this section shall, during the term of the program,
212 transfer title of all non-energy attributes to the distribution company to which said facilities are
213 interconnected. The distribution company may elect to retain such attributes to meet the
214 applicable annual requirements under section 11F, provided that any attributes not so used shall
215 be sold into the market. To the extent there are any other market products or attributes that are
216 obtained from such facilities, such market products shall be sold in the market.

217 The distribution company shall credit the proceeds of any sales of attributes used for
218 compliance under section 11F or any other market products or attributes acquired from the solar
219 generation facilities for the benefit of distribution customers through the provisions of section
220 94K of chapter 164. If the distribution company has elected to retain any attributes used for
221 compliance under section 11F, the distribution company shall credit the market value of the such
222 attributes against the cost through the provisions of said section 94K and the market value of
223 such attributes shall be included in the cost of basic service for which the attributes were
224 retained, subject to the approval of the department of public utilities.

225 For accounting purposes only, the distribution company may elect to account for the
226 bundled incentive paid to solar virtual metering facilities such that the cost of the energy is
227 procured at the real time market price of energy and the balance of payments and virtual
228 metering credits shall be attributable to the purchase of environmental and any other attributes
229 acquired. This accounting shall have no effect on the compensation to which the customers of
230 record and recipients of credits of solar virtual metering facilities are otherwise entitled.

231 (l) The department shall adopt rules and regulations necessary to implement this
232 section.

233 SECTION 2. Chapter 164 of the General Laws is hereby amended by inserting after
234 section 94I the following sections:-

235 Section 94J. For all rate classes of each distribution company, the department shall
236 review and approve a minimum monthly contribution to be included on a customer's total bill
237 that ensures each customer contributes each month a reasonable amount toward the costs of the
238 electric distribution system that are not caused by volumetric consumption. Minimum monthly
239 contributions may differ by rate class and by amount of customer load within each rate class.
240 The department may exempt or modify the minimum monthly contribution for the low income
241 rate class. Each distribution company may elect to include its proposal for minimum monthly

242 contributions: (1) as part of its next base distribution rate proceeding; or (2) as part of a revenue
243 neutral rate design filing that is supported by appropriate cost of service data across all rate
244 classes and that is decided within six months of its filing. A distribution company may propose
245 minimum monthly contributions in a revenue neutral, rate design filing, as long as the scope of
246 the filing is limited to the minimum monthly contributions requirements authorized by this
247 section. The department shall ensure that any minimum monthly contributions approved in a
248 revenue neutral rate design filing are applied in a nondiscriminatory manner so that customers
249 with renewable energy generating facilities are subject to the same monthly contributions as
250 customers who do not have onsite renewable energy generating facilities.

251

252 Section 94K. Rate Recovery Mechanism

253 a. The following total costs incurred by a distribution company shall be recovered
254 by the distribution company through an annually reconciling rate recovery mechanism, which is
255 to be approved by the department: (i) the costs of all incentive payments specified in paragraph
256 (e) of section 11K of chapter 25A; (ii) the costs of all solar virtual metering credits as defined in
257 section 139A; (iii) the costs of solar net metering credits as defined in section 139 1/2 ; and (iv)
258 the incremental costs described in subsection (b) For distribution companies that have not yet
259 implemented revenue decoupled rates, the rate recovery mechanism shall also recover any
260 distribution charges displaced by phase 2 solar net metering and solar virtual metering facilities.
261 Any net proceeds obtained by a distribution company from any resulting energy, environmental
262 attributes or other market products shall be applied to the rate recovery mechanism. By January
263 1, 2016, the cost recovery mechanism set forth in section 139 (b)(2)(c) and section 139A (j) shall
264 be consolidated with said rate recovery mechanism to create one rate recovery mechanism for all
265 the applicable costs, . The costs in the rate recovery mechanism shall be recovered from any
266 customer receiving any delivery service from the distribution company or who is otherwise
267 connected to a distribution system for service when a form of self-supply is not available. The
268 net costs to be included in the rate recovery mechanism shall be forecasted at the beginning of
269 each applicable twelve month period and reconciled to actual costs and actual proceeds at the
270 end of the applicable period. The net forecasted costs shall include an estimate of the costs
271 netted against a forecasted estimate of the proceeds from the expected sale of any energy,
272 environmental attributes, or other market products. The rates shall be designed to assure
273 equitable recovery of costs from all distribution customers across all rate classes in a manner that
274 is not by-passable.

275 b. Each distribution company shall take all reasonable steps necessary to ensure the
276 timely, accurate, and prudent administration of the program, including customer interaction,
277 billing, payment processing, completion of interconnection studies, additional metering, and
278 construction of interconnections. To meet this objective, the distribution companies shall add an
279 appropriate amount of additional employee resources in appropriate functions, install such

280 additional metering as may be necessary, and make all necessary changes to its billing and
281 payment systems, the incremental costs of which shall be recoverable from all customers through
282 the rate recovery mechanism set forth in subsection (a) above, subject to the review and approval
283 of the department.

284 SECTION 3. Section 138 of said chapter 164, as so appearing, is hereby amended by
285 inserting in lines 27, 43, 61, and 83 after the figure “25,” each time it appears, the following
286 words:-

287 “or the rate recovery mechanism set forth in section 94K”

288 SECTION 4. Section 139 of said chapter 164, is hereby amended by striking out
289 paragraph (f), as appearing in the 2010 Official Edition, and inserting in place thereof the
290 following paragraph:-

291 (f) The aggregate net metering capacity of facilities that are a non-solar Class I
292 facility, a non-solar agricultural net metering facility, a wind net metering facility, or an
293 anaerobic digestion net metering facility shall not exceed 3 per cent of the distribution
294 company’s peak load, which includes all such facilities that are interconnected or have been
295 approved as eligible for net metering as of the effective date of this section. The maximum
296 amount of nameplate capacity eligible under this section and under section 139A of chapter 164
297 by a municipality or other governmental entity shall be 10 megawatts AC. For the purpose of
298 calculating the aggregate capacity, the capacity of a non-solar Class I facility, a non-solar
299 agricultural net metering facility, a wind net metering facility or an anaerobic digestion net
300 metering facility shall be its nameplate rating. Once the aggregate net metering cap has been
301 reached, any new non-solar Class I facility, non-solar agricultural net metering facility, wind net
302 metering facility or anaerobic digestion net metering facility not previously in operation or
303 included as eligible under said cap shall be eligible to net meter and shall be eligible to produce
304 net metering credits provided that the net metering credits for such facilities shall be calculated
305 as a credit equal to the excess kilowatt-hours by time of use billing period, if applicable,
306 multiplied by the sum of the distribution company’s: (i) default service kilowatt-hour charge in
307 the ISO-NE load zone where the customer is located; (ii) transmission kilowatt-hour charge; and
308 (iii) transition kilowatt-hour charge; provided further, however, that this shall not include the
309 demand side management and renewable energy kilowatt-hour charges set forth in sections 19
310 and 20 of chapter 25 or the rate recovery mechanism set forth in chapter 94K. No aggregate net
311 metering cap shall apply to solar net metering facilities.

312 SECTION 5. Said chapter 164 of the General Laws is hereby amended by inserting after
313 section 139 the following section:-,

314 Section 139A

315 (a) For purposes of this section, unless the context otherwise requires, the following
316 words shall have the following meanings:

317 “Campus solar virtual metering facility”, a solar virtual metering facility where the
318 facility, the customer of record, and the recipients of credits are all located on the same parcel of
319 land and where they have a documented relationship regarding the use or occupancy of the land
320 other than a beneficial interest in the solar virtual metering facility, including but not limited to a
321 landlord-tenant relationship.

322

323 “Community shared solar virtual metering facility”, a solar virtual metering facility with
324 three or more eligible recipients of credits, provided that no more than 50% of the credits
325 produced by the facility are allocated to two such recipients, and provided further that each of the
326 remaining recipients receive no more than the amount of credits produced annually by 25 kW
327 AC capacity.

328 “Customer of Record”, an eligible customer with the distribution company: (1) whose
329 name appears on the account associated with a phase 2 solar net metering facility or the account
330 associated with a solar virtual metering facility; and (2) who makes elections regarding the phase
331 2 solar net metering credits or the solar virtual metering credits.

332 “Landfill solar virtual metering facility”, a solar virtual metering facility located at a
333 landfill that has received the approval of the department of environmental protection for the use
334 of a solar photovoltaic facility at the landfill as a post-closure use.

335

336 “Low income residential solar virtual metering facility”, a solar virtual metering facility
337 that allocates all of its solar virtual metering credits to the providers or residents of low or
338 moderate income housing, as defined under section 20 of chapter 40B.

339 “Phase 2 solar net metering facility”, solar plant or equipment that uses sunlight to
340 produce, manufacture or otherwise generate electricity that is interconnected to a distribution
341 company’s distribution system and that is not a transmission facility, and that feeds electricity
342 back to the distribution company through an eligible customer’s revenue meter, and that begins
343 operating on or after July 1, 2015. A phase 2 solar net metering facility is a facility that was
344 designed with a nameplate capacity to meet no more than 100 percent of the customer’s annual
345 on site electricity consumption, as determined by a three-year average or, if an average cannot be
346 determined or is not reasonably representative, by a reasonable forecast of projected electricity
347 consumption. Documentation of eligibility and electricity consumption shall be prepared by the
348 customer of record and may be verified by the distribution company. If a phase 2 solar net
349 metering facility was designed to meet no more than 100 percent of the net metering customer’s

350 on-site electricity consumption but the nameplate capacity ultimately installed is larger based on
351 unforeseen circumstances issues and is no more than either 1 kilowatt or 10 percent larger,
352 whichever is greater, than designed, it shall remain eligible as a phase 2 solar net metering
353 facility; provided that the nameplate capacity shall not exceed 5 megawatts. The nameplate
354 capacity of a phase 2 solar net metering facility must be less than or equal to 5 megawatts AC.

355 “Private entity solar virtual metering facility”, a solar virtual metering facility with a
356 nameplate capacity of less than or equal to 1 megawatt AC where the customer of record and all
357 recipients of credits are either the same legal entity, as registered with the state secretary, or are
358 otherwise legally affiliated, and provided that such facility is not a community shared solar
359 virtual metering facility, low income residential solar virtual metering facility, or campus solar
360 virtual metering facility, provided further that the customer of record and all recipients of credits
361 qualify for this definition.

362 “Recipient of credits,” an eligible customer of the distribution company whose name
363 appears on the account receiving solar virtual metering credits produced by a solar virtual
364 metering facility, provided that the recipient of credits meets eligibility requirements associated
365 with the solar virtual metering facility classification.

366 “Revenue meter”, a meter that is owned, operated, and provided by the distribution
367 company, and that is not a production meter, and that measures phase 2 solar net metering credits
368 or solar virtual metering credits resulting from the delivery of electricity to the distribution
369 company.

370 “Solar net metering”, the process of measuring the difference between electricity
371 delivered by a distribution company to a customer of record and solar electricity generated and
372 fed back to the distribution company by a phase 2 solar net metering facility.

373 “Solar net metering credit”, a credit for the production of solar electricity equal to the
374 excess kilowatt-hours by time of use billing period, if applicable, multiplied by the sum of the
375 distribution company’s: (i) default service kilowatt-hour charge in the ISO-NE load zone where
376 the customer is located; (ii) distribution kilowatt-hour charge; (iii) transmission kilowatt-hour
377 charge; and (iv) transition kilowatt-hour charge; provided, however, that this shall not include
378 the demand side management and renewable energy kilowatt-hour charges set forth in sections
379 19 and 20 of chapter 25 or the rate recovery mechanism set forth in chapter 94K.

380 “Solar virtual metering credit”, a credit equal to the excess kilowatt-hours by time of use
381 billing period, if applicable, multiplied by the sum of the distribution company’s: (i) default
382 service kilowatt-hour charge in the ISO-NE load zone where the customer of record is located;
383 (ii) transmission kilowatt-hour charge; and (iii) transition kilowatt-hour charge; provided,
384 however, this shall not include the demand side management and renewable energy kilowatt-
385 hour charges set forth in sections 19 and 20 of chapter 25 or the rate recovery mechanism set
386 forth in chapter 94K.

387

388 “Solar virtual metering facility”, solar plant or equipment that uses sunlight to produce,
389 manufacture or otherwise generate electricity, that is interconnected to a distribution company’s
390 distribution system, and that is not a transmission facility, and that feeds electricity to the
391 distribution company through an appropriate meter, and where all electricity delivered to the
392 facility is used only for operating the facility’s systems, and that begins operating on or after July
393 1, 2015. The nameplate generating capacity of a solar virtual metering facility shall not exceed 2
394 megawatts AC, provided that a solar virtual metering facility at a landfill shall have a nameplate
395 generating capacity of less than or equal to 5 megawatts AC, and provided that a private entity
396 solar virtual metering facility shall have a nameplate generating capacity of less than or equal to
397 1 megawatt AC. A solar virtual metering facility shall be one of the following: campus solar
398 virtual metering facility; community shared solar virtual metering facility; landfill solar virtual
399 metering facility; low income residential solar virtual metering facility; private entity solar
400 virtual metering facility; solar virtual metering facility of a municipality or other governmental
401 entity.

402 “Solar virtual metering facility of a municipality or other governmental entity”, a solar
403 virtual metering facility: (1) that is owned or operated by a municipality or other governmental
404 entity; or (2) of which the municipality or other governmental entity is assigned 100 per cent of
405 the output; provided that the customer of record and all recipients of credits qualify for this
406 classification.

407 (b) (1) A phase 2 solar net metering facility or solar net metering customer or solar virtual
408 metering facility or solar virtual metering customer or recipient of credits shall not be: an electric
409 utility, generation company, aggregator, supplier, energy marketer or energy broker, within the
410 meaning of those terms as defined in sections 1 and 1F.

411 (2) Eligibility of a facility as a phase 2 solar net metering facility or as a solar virtual
412 metering facility must be determined when the facility seeks an assurance, as provided in
413 subsection (k), of net metering or virtual metering eligibility and, once determined, a facility’s
414 eligibility for either phase 2 solar net metering or solar virtual metering will apply for the life of
415 the facility, unless the customer of record terminates net metering or virtual metering services. If
416 a customer of record seeks to expand a phase 2 solar net metering facility, the customer of record
417 must make a new demonstration of on-site electricity consumption. If a customer of record seeks
418 to expand a phase 2 net metering facility or a solar virtual metering facility, the customer of
419 record must seek an assurance of net metering or virtual metering eligibility for the capacity
420 associated with such expansion as provided in subsection k, below.

421 (c) (1) As provided in section 94J of chapter 164, all distribution company customers
422 shall be subject to a minimum monthly contribution.

423 (2) A customer of record using electricity generated by a phase 2 solar net metering
424 facility may elect net metering services as follows:

425 If the electricity generated and fed back to the distribution company by the phase 2 solar
426 net metering facility during a billing period exceeds the kilowatt-hours delivered by a
427 distribution company during the billing period, the customer of record shall be billed for 0
428 kilowatt-hours delivered by a distribution company and the excess solar net metering credits
429 shall be credited to the customer of record's account. Solar net metering credits may be carried
430 forward from month to month. If the electricity delivered by a distribution company exceeds any
431 solar net metering credits generated by the phase 2 solar net metering facility during the billing
432 period, the customer of record shall be responsible for the balance at the distribution company's
433 applicable rate. Distribution companies shall be prohibited from imposing special fees on
434 facilities under this subsection with a nameplate capacity under 60 kilowatts, such as backup
435 charges and demand charges, or additional controls or liability insurance, as long as the facility
436 meets the other requirements of the interconnection tariff and all relevant safety and power
437 quality standards.

438 (3) A distribution company customer of record with a solar virtual metering facility may
439 elect virtual metering services as follows:

440 The total production for the billing period by the solar virtual metering facility shall be
441 credited to the customer of record's account. Credits may be carried forward from month to
442 month. Except as provided in paragraph (i), the customer of record may allocate solar virtual
443 metering credits to eligible recipients of credits, provided that the recipients of credits are
444 interconnected with the same distribution company and located within the same ISO-NE load
445 zone. Written notice of the identities of the recipients of solar virtual metering credits and the
446 amounts of the credits to be allocated shall be in a form as the distribution company shall
447 reasonably require. To the extent that the kilowatt-hour usage of the customer of record and of
448 the recipients of credits exceeds any solar virtual metering credits, the customer of record and the
449 recipient of credits shall each be responsible for their respective balance at the distribution
450 company's applicable rate.

451 (4) Subject to the review and approval of the department, a distribution company may
452 elect to establish a policy of installing two meters at a phase 2 solar net metering and/or solar
453 virtual metering facility.

454 (d) A distribution company shall from time to time, file tariffs regarding necessary
455 interconnection studies and the type, costs and timeframe for installing metering and distribution
456 system upgrades to accommodate facilities under this section for department review and
457 approval. Such tariffs shall require that all facilities maintain adequate insurance. Before
458 providing net metering service or virtual metering service under this section, a customer of
459 record seeking these services associated with a phase 2 solar net metering facility or a solar

460 virtual metering facility must complete all necessary documentation to allow the distribution
461 company to offer these services, including documentation associated with obtaining appropriate
462 asset identification for reporting generation to ISO-NE.

463

464 (e) There shall be no limit on the aggregate capacity of phase 2 solar net metering
465 facilities or solar virtual metering facilities.

466

467 (f) A municipality or other governmental entity that is a member of a cooperative
468 corporation, provided that said cooperative corporation is organized under section 136 and
469 comprised solely of municipalities or other governmental entities, may designate said
470 cooperative corporation as the customer of record for a solar virtual metering facility, provided
471 that all of the recipients of solar virtual metering credits are also members of said cooperative
472 but may not designate said cooperative corporation as the customer of record for a phase 2 solar
473 net metering facility. Each municipality or other governmental entity is subject to the aggregate
474 capacity cap under subsection (f) of section 139, and it may transfer all or part of such aggregate
475 capacity cap to said cooperative corporation, allowing said cooperative corporation to increase
476 its aggregate capacity cap as an other governmental entity to more than 10 megawatts AC of
477 eligible solar virtual metering facilities or eligible phase 2 solar net metering facilities. Such
478 cooperative corporation shall not be considered an electric company, generation company,
479 aggregator, supplier, energy marketer or energy broker, as those terms are defined in sections 1
480 and 1F.

481 (g)

482 (1) Behind-the-meter treatment shall be available to solar generation facilities that are
483 actually physically located behind the revenue meter or are located on the same parcel as and
484 within a reasonably short distance from where the customer of record's load is measured. For
485 purposes of this subsection, behind-the-meter treatment shall mean the provision of net metering
486 credits to an eligible phase 2 solar net metering customer. All other solar generation facilities
487 meeting the applicable size requirements shall be eligible for virtual metering as otherwise
488 provided in this section. To be eligible for behind-the-meter net metering, a solar generation
489 facility must deliver the electricity it produces directly from the solar generation facility to a
490 delivery point behind or to the customer of record's revenue meter (hereinafter referred to as the
491 "NM delivery point") over a dedicated line that is direct from the generation to the NM delivery
492 point. A solar generation facility that is not (i) physically located on the same parcel as and
493 behind the revenue meter of the customer of record's account or (ii) on the same parcel as and
494 within a reasonably short distance from the account where the customer of record's load is
495 measured shall not receive behind-the-meter treatment by connecting to the NM delivery point
496 through an electrical connection that was planned and constructed for the primary purpose of

497 avoiding the locational limitations of this section to obtain behind-the-meter treatment. If there
498 is a dispute about the purpose of an electrical connection that delivers the energy directly to the
499 NM delivery point over a dedicated line, the proponent of the facility shall have the right to file a
500 petition with the department for review, and if the department determines that the primary
501 purpose of the direct and dedicated electrical connection is not to become eligible for behind-the-
502 meter treatment, the department may permit behind-the-meter treatment.

503 (2) No single parcel other than a landfill may contain more than: (i) two megawatts
504 AC of solar nameplate capacity eligible as a solar virtual metering facility; (ii) five megawatts
505 AC of solar nameplate capacity that is eligible for phase 2 solar net metering; or (iii) two
506 megawatts AC of solar nameplate capacity eligible where there are both phase 2 solar net
507 metering facilities and solar virtual metering facilities, provided that each facility is the subject
508 of a separate interconnection application and is individually metered. No person shall be
509 permitted to avoid the nameplate capacity limits set forth in this section by segmenting a solar
510 generation project or facility into smaller facilities on contiguous parcels; provided, however,
511 that a project or facility shall not be considered segmented if the solar generation projects or
512 facilities are developed and owned by entities that are not legally or financially affiliated with
513 each other and there were no financial or other arrangements made between project developers or
514 owners that were designed to technically avoid the application of the size limitations. Unless one
515 facility's development milestones all occur no less than 12 months earlier than the corresponding
516 milestone for the other facility or facilities, a facility shall be considered segmented into smaller
517 facilities if: (i) two or more facilities are on contiguous parcels, and (ii) any of the following are
518 true: involve the same point of common coupling, same developer, same parcel owner, same
519 interconnecting customer, same customer of record, or same recipient of credits. For purposes of
520 this section, a facility's milestones shall be: (1) its filing of an interconnection application with a
521 distribution company; and (2) its filing of an application for eligibility for an incentive as a phase
522 2 solar net metering facility or virtual metering facility. The department of public utilities shall
523 have the authority to resolve disputes regarding project segmentation.

524 (h) A customer of record may request a payment for an accumulated balance of solar
525 net metering credits to electric accounts for a phase 2 solar net metering facility. Such payments
526 will occur no more than one time per year as long as: (1) the excess net metering credits on an
527 account exceed the higher of: (i) 50 percent of the customer's actual billings on the applicable
528 account for the prior twelve months, including all rates and charges billed to the account in that
529 period; or (ii) 50 percent of the prior twelve months billings estimated for the typical customer
530 bill on basic service in the rate class applicable to the account; or (2) the customer of record's
531 account is to be closed. For such payments, the distribution company shall re-calculate the
532 excess credits at the rate of a solar virtual metering credit.

533 (i) For solar virtual metering facilities of municipalities or other governmental
534 entities, a distribution company may elect to provide payments in lieu of applying credits to the
535 electric accounts of designated recipients of credits, as long as:

536 (1) The reasonably expected annual electricity to be produced by the solar virtual
537 metering facility is equal to or less than past electricity consumption on the accounts of the
538 recipients of credits, based on a one-time verification. If the electricity consumption at such
539 accounts decreases after such verification, the recipient of credits will remain eligible for such
540 payments, provided that the designated account is still consuming some electricity and remains
541 as a customer receiving a form of delivery service from the distribution company.

542 (2) At the written request of the customer of record, the distribution company may re-
543 allocate the payments for credits to the customer of record and the recipients of credits, provided
544 that such changes are requested no more often than once per year, and with 60 days' advance
545 notice to the distribution company.

546 (3) Nothing in this subsection shall prohibit the distribution company and the
547 customer of record of a solar virtual metering facility from reaching a mutual agreement
548 regarding payments for an accumulated balance of solar virtual metering credits and the process
549 associated with such payments.

550 (j) Subject to section 94K, the electric distribution portion of all credits that are
551 provided by a distribution company to customers with phase 2 solar net metering facilities and
552 solar virtual metering facilities and the distribution company delivery charges displaced by such
553 facilities shall be recovered from all customers by a distribution company through an annually
554 fully reconciling cost recovery mechanism, to be approved by the department.

555 (k) The department shall adopt rules and regulations as necessary to carry out this
556 section, including adoption or continuation of a system that provides proposed phase 2 solar net
557 metering facilities and solar virtual metering facilities an assurance of net metering eligibility or
558 virtual metering eligibility.

559 SECTION 6. Before September 1, 2014, the department of energy resources shall
560 commence development of a comprehensive and integrated declining block incentive program
561 proposal, comprising the matters set forth in section 11K of chapter 25A. The distribution
562 companies, as defined in section 1 of chapter 164, in consultation with the department of energy
563 resources, shall develop draft tariff terms and conditions that are designed to implement said
564 declining block incentive program on terms, to the extent practicable, that are substantially the
565 same among each of the distribution companies. In developing said declining block incentive
566 program and engaging with the distribution companies in development of the corresponding draft
567 tariffs, the department of energy resources shall consult with the distribution companies and
568 other stakeholders, and shall convene at least one public meeting. On or before November 1,
569 2014, (i) the department of energy resources shall file with the department of public utilities a
570 petition seeking approval of said declining block incentive program proposal; and (ii) the
571 distribution companies shall jointly file a petition with the department of public utilities seeking
572 approval of illustrative tariffs. To the extent there are any material disagreements during the

573 respective consultation processes regarding the development of the content of either filing, the
574 nature of any such disagreements shall be reasonably noted in the respective filings. To the
575 extent the department of energy resources and the distribution companies agree on the content of
576 each filing, the filing may be made jointly by all parties. The respective petitions shall
577 demonstrate that the proposed program and tariffs meet the standards set forth in section 11K.

578 SECTION 7. The department of public utilities shall issue an order on the petition or
579 petitions of the department of energy resources and distribution companies under Section 6 in
580 furtherance of 11K of chapter 25A no later than June 1, 2015. Distribution companies shall be
581 required to submit compliance tariffs within 30 days of the department's order, with the tariffs
582 becoming effective July 1, 2015.

583 SECTION 8.

584 (a) A solar photovoltaic facility that is not interconnected or that has not received the
585 assurances specified in clauses (i) and (ii) below, before July 1, 2015, shall be eligible as a solar
586 net metering facility under sections 138 and 139 of chapter 164 of the General Laws, and shall
587 qualify under subsection(g) of section 11F of chapter 25A provided such solar facility meets the
588 requirements of said sections and applicable regulations, and: (i) receives an assurance of
589 qualification from the department of energy resources as an eligible renewable energy generating
590 source under said subsection (g) of said section 11F of said chapter 25A; (ii) receives an
591 assurance of net metering eligibility under the system required by said section 139 of said
592 chapter 164; (iii) provides to the relevant distribution company, or its assignee as approved by
593 the department of public utilities, a deposit in an amount equal to \$60 per 1 kilowatt of the
594 nameplate capacity of such facility; and (iv) is mechanically complete before said assurances in
595 clause (i), and where required (ii), expire, are revoked, or are withdrawn Provided further, that
596 solar facilities with a nameplate capacity of 25 kilowatts or less are not subject to clause (iii)
597 above if not subject to clause (ii) above. For purposes of this subsection "mechanically
598 complete" shall mean that substantially all of the solar generating equipment on the customer's
599 side of the distribution company's meter, including panels, inverters, ballasts, or other mounting
600 equipment, has been physically constructed and all payments due to the distribution company
601 under such facility interconnection service agreement have been paid as and when due. All solar
602 photovoltaic facilities must be mechanically complete by September 30, 2016 to maintain
603 eligibility under subsection (g) of section 11F of said chapter 25A and sections 138 and 139 of
604 said chapter 164.

605 (b) A deposit referred to in clause (iii) of subsection (a) shall be returned to the
606 applicant upon notice to the distribution company or its approved designee from the department
607 of energy resources that the facility has met the requirements of subsection (a). If a facility fails
608 to meet any of the requirements of subsection (a), the deposit shall be forfeited and credited to all
609 distribution customers of the distribution company.

610 (c) On and after January 1, 2016, any solar photovoltaic facility, that has not been
611 interconnected or that has not met the requirements of clause (i) of subsection (a), and where
612 applicable, (ii) and (iii) of subsection (a), shall not be eligible as a renewable generating resource
613 for a program under said subsection (g) of section 11F of chapter 25A and shall not qualify as a
614 solar net metering facility under sections 138 and 139 of chapter 164.

615 (d) Nothing provided in this section shall preclude solar facilities from being
616 qualified as a phase 2 solar net metering facility or solar virtual metering facility under section
617 139A of said chapter 164 or as an eligible renewable generating resource under subsection (c) of
618 said section 11F of said chapter 25A or any facility eligible under section 11K of said chapter
619 25A as of the effective date.