

RESOLUTION 02-02-04

DIGEST

Private Solar & Wind Energy Producers: Mandatory Payment

Amends Public Utilities Code section 2827 to provide payment to private solar and wind energy producers for net excess energy generated over a twelve-month period.

RESOLUTIONS COMMITTEE RECOMMENDATION

APPROVE IN PRINCIPLE

History:

No similar resolutions found.

Reasons:

This resolution amends Public Utilities Code section 2827 to provide payment to private solar and wind energy producers for net excess energy generated over a twelve-month period. This resolution should be approved in principle because it creates an incentive for such customers to produce excess clean, renewable energy which municipal and investor utilities may use as part of their energy supply, reducing air pollution and reliance on oil.

California law allows residential, small business, agricultural and commercial utility customers to install private solar and wind energy generators. Energy produced by solar and wind generators enters a utility grid maintained by the local municipal or investor utility. Over a twelve-month period, the utility credits the personal account of the private producer for energy produced and deducts the account for energy used. At the end of the twelve-month period, the utility charges the utility customer's personal account for any excess energy consumed. However, under the current version of section 2827, any excess energy produced is not compensated. Instead, the utility customer must donate the excess energy produced to the utility. The utility may then benefit from this excess energy by selling it to another customer at the retail price. An owner of a solar or wind generator is only compensated for the excess energy if the utility volunteers to pay for it.

This resolution would amend current law to require utilities to pay their customer the market rate for any excess energy produced at the end of the twelve-month period. Currently, Massachusetts, New Jersey, New York, Minnesota, Virginia, and Wyoming require that all utilities provide compensation for excess energy from renewable sources. Paying owners of solar and wind generators for excess energy would create an incentive for private owners to produce clean, renewable energy in an amount greater than that which they consume.

California law requires all utilities to procure at least twenty percent of their retail sales from renewable energy sources by the year 2017. (Pub. Util. Code, §399.15.) This resolution would facilitate the production of excess solar and wind energy resulting in an increased supply of renewable energy that may be used by a municipal or investor utility for sale to retail customers.

TEXT OF RESOLUTION

RESOLVED, that the Conference of Delegates of California Bar Associations recommends that legislation be sponsored to amend Public Utilities Code section 2827 to read as follows:

1 § 2827

2 (a) The Legislature finds and declares that a program to provide net energy metering
3 for eligible customer-generators is one way to encourage substantial private investment in
4 renewable energy resources, stimulate in-state economic growth, reduce demand for
5 electricity during peak consumption periods, help stabilize California's energy supply
6 infrastructure, enhance the continued diversification of California's energy resource mix,
7 and reduce interconnection and administrative costs for electricity suppliers.

8 (b) As used in this section, the following definitions apply:

9 (1) "Electric service provider" means an electrical corporation, as defined in Section
10 218, a local publicly owned electric utility, as defined in Section 9604, or an electrical
11 cooperative, as defined in Section 2776, or any other entity that offers electrical service.
12 This section shall not apply to a local publicly owned electric utility, as defined in Section
13 9604 of the Public Utilities Code, that serves more than 750,000 customers and that also
14 conveys water to its customers.

15 (2) "Eligible customer-generator" means a residential, small commercial customer
16 as defined in subdivision (h) of Section 331, commercial, industrial, or agricultural
17 customer of an electric service provider, who uses a solar or a wind turbine electrical
18 generating facility, or a hybrid system of both, with a capacity of not more than one
19 megawatt that is located on the customer's owned, leased, or rented premises, is
20 interconnected and operates in parallel with the electric grid, and is intended primarily to
21 offset part or all of the customer's own electrical requirements.

22 (3) "Net energy metering" means measuring the difference between the electricity
23 supplied through the electric grid and the electricity generated by an eligible customer-
24 generator and fed back to the electric grid over a 12- month period as described in
25 subdivision (h). Net energy metering shall be accomplished using a single meter capable of
26 registering the flow of electricity in two directions. An additional meter or meters to
27 monitor the flow of electricity in each direction may be installed with the consent of the
28 customer-generator, at the expense of the electric service provider, and the additional
29 metering shall be used only to provide the information necessary to accurately bill or credit
30 the customer-generator pursuant to subdivision (h), or to collect solar or wind electric
31 generating system performance information for research purposes. If the existing electrical
32 meter of an eligible customer-generator is not capable of measuring the flow of electricity
33 in two directions, the customer-generator shall be responsible for all expenses involved in
34 purchasing and installing a meter that is able to measure electricity flow in two directions.
35 If an additional meter or meters are installed, the net energy metering calculation shall
36 yield a result identical to that of a single meter. An eligible customer-generator who
37 already owns an existing solar or wind turbine electrical generating facility, or a hybrid
38 system of both, is eligible to receive net energy metering service in accordance with this
39 section.

40 (4) "Wind energy co-metering" means any wind energy project greater than 50
41 kilowatts, but not exceeding one megawatt, where the difference between the electricity

42 supplied through the electric grid and the electricity generated by an eligible customer-
43 generator and fed back to the electric grid over a 12- month period is as described in
44 subdivision (h). Wind energy co-metering shall be accomplished pursuant to Section
45 2827.8.

46 (5) "Co-energy metering" means a program that is the same in all other respects as a
47 net energy metering program, except that the local publicly owned electric utility, as
48 defined in Section 9604, has elected to apply a generation-to- generation energy and time-
49 of-use credit formula as provided in subdivision (i).

50 (6) "Ratemaking authority" means, for an electrical corporation as defined in
51 Section 218, or an electrical cooperative as defined in Section 2776, the commission, and
52 for a local publicly owned electric utility as defined in Section 9604, the local elected body
53 responsible for regulating the rates of the local publicly owned utility.

54 (c)(1) Every electric service provider shall develop a standard contract or tariff
55 providing for net energy metering, and shall make this contract available to eligible
56 customer-generators, upon request, on a first-come-first- served basis until the time that
57 the total rated generating capacity used by eligible customer-generators exceeds one-half
58 of 1 percent of the electric service provider's aggregate customer peak demand.

59 (2) On an annual basis, beginning in 2003, every electric service provider shall
60 make available to the ratemaking authority information on the total rated generating
61 capacity used by eligible customer-generators that are customers of that provider in the
62 provider's service area. For those electric service providers who are operating pursuant to
63 Section 394, they shall make available to the ratemaking authority the information required
64 by this paragraph for each eligible customer-generator that is their customer for each
65 service area of an electric corporation, local publicly owned electric utility, or electrical
66 cooperative, in which the customer has net energy metering. The ratemaking authority
67 shall develop a process for making the information required by this paragraph available to
68 energy service providers, and for using that information to determine when, pursuant to
69 paragraph (3), a service provider is not obligated to provide net energy metering to
70 additional customer-generators in its service area.

71 (3) Notwithstanding paragraph (1), an electric service provider is not obligated to
72 provide net energy metering to additional customer-generators in its service area when the
73 combined total peak demand of all customer-generators served by all the electric service
74 providers in that service area furnishing net energy metering to eligible customer-
75 generators exceeds one-half of 1 percent of the aggregate customer peak demand of those
76 electric service providers.

77 (d) Electric service providers shall make all necessary forms and contracts for net
78 metering service available for download from the Internet.

79 (e)(1) Every electric service provider shall ensure that requests for establishment of
80 net energy metering are processed in a time period not exceeding that for similarly situated
81 customers requesting new electric service, but not to exceed 30 working days from the date
82 the electric service provider receives a completed application form for net metering
83 service, including a signed interconnection agreement from an eligible customer- generator
84 and the electric inspection clearance from the governmental authority having jurisdiction.
85 If an electric service provider is unable to process the request within the allowable
86 timeframe, the electric service provider shall notify both the customer-generator and the

87 ratemaking authority of the reason for its inability to process the request and the expected
88 completion date.

89 (2) Electric service providers shall ensure that requests for an interconnection
90 agreement from an eligible customer-generator are processed in a time period not to
91 exceed 30 working days from the date the electric service provider receives a completed
92 application form from the eligible customer- generator for an interconnection agreement. If
93 an electric service provider is unable to process the request within the allowable
94 timeframe, the electric service provider shall notify the customer-generator and the
95 ratemaking authority of the reason for its inability to process the request and the expected
96 completion date.

97 (f)(1) If a customer participates in direct transactions pursuant to paragraph (1) of
98 subdivision (b) of Section 365 with an electric supplier that does not provide distribution
99 service for the direct transactions, the service provider that provides distribution service
100 for an eligible customer-generator is not obligated to provide net energy metering to the
101 customer.

102 (2) If a customer participates in direct transactions pursuant to paragraph (1) of
103 subdivision (b) of Section 365 with an electric supplier, and the customer is an eligible
104 customer-generator, the service provider that provides distribution service for the direct
105 transactions may recover from the customer's electric service provider the incremental
106 costs of metering and billing service related to net energy metering in an amount set by the
107 ratemaking authority.

108 (g) Each net energy metering contract or tariff shall be identical, with respect to rate
109 structure, all retail rate components, and any monthly charges, to the contract or tariff to
110 which the same customer would be assigned if the customer did not use an eligible solar or
111 wind electrical generating facility, except that eligible customer- generators shall not be
112 assessed standby charges on the electrical generating capacity or the kilowatthour
113 production of an eligible solar or wind electrical generating facility. The charges for all
114 retail rate components for eligible customer-generators shall be based exclusively on the
115 customer-generator's net kilowatthour consumption over a 12- month period, without
116 regard to the customer-generator's choice of electric service provider. Any new or
117 additional demand charge, standby charge, customer charge, minimum monthly charge,
118 interconnection charge, or any other charge that would increase an eligible customer-
119 generator's costs beyond those of other customers who are not customer-generators in the
120 rate class to which the eligible customer- generator would otherwise be assigned if the
121 customer did not own, lease, rent, or otherwise operate an eligible solar or wind electrical
122 generating facility are contrary to the intent of this section, and shall not form a part of net
123 energy metering contracts or tariffs.

124 (h) For eligible residential and small commercial customer-generators, the net
125 energy metering calculation shall be made by measuring the difference between the
126 electricity supplied to the eligible customer-generator and the electricity generated by the
127 eligible customer-generator and fed back to the electric grid over a 12-month period. The
128 following rules shall apply to the annualized net metering calculation:

129 (1) The eligible residential or small commercial customer-generator shall, at the end
130 of each 12-month period following the date of final interconnection of the eligible
131 customer-generator's system with an electric service provider, and at each anniversary date

132 thereafter, be billed for electricity used during that period. The electric service provider
133 shall determine if the eligible residential or small commercial customer-generator was a
134 net consumer or a net producer of electricity during that period.

135 (2) At the end of each 12-month period, where the electricity supplied during the
136 period by the electric service provider exceeds the electricity generated by the eligible
137 residential or small commercial customer-generator during that same period, the eligible
138 residential or small commercial customer-generator is a net electricity consumer and the
139 electric service provider shall be owed compensation for the eligible customer-generator's
140 net kilowatthour consumption over that same period. The compensation owed for the
141 eligible residential or small commercial customer-generator's consumption shall be
142 calculated as follows:

143 (A) For all eligible customer-generators taking service under tariffs employing
144 "baseline" and "over baseline" rates, any net monthly consumption of electricity shall be
145 calculated according to the terms of the contract or tariff to which the same customer
146 would be assigned to or be eligible for if the customer was not an eligible customer-
147 generator. If those same customer- generators are net generators over a billing period, the
148 net kilowatthours generated shall be valued at the same price per kilowatthour as the
149 electric service provider would charge for the baseline quantity of electricity during that
150 billing period, and if the number of kilowatthours generated exceeds the baseline quantity,
151 the excess shall be valued at the same price per kilowatthour as the electric service
152 provider would charge for electricity over the baseline quantity during that billing period.

153 (B) For all eligible customer-generators taking service under tariffs employing "time
154 of use" rates, any net monthly consumption of electricity shall be calculated according to
155 the terms of the contract or tariff to which the same customer would be assigned to or be
156 eligible for if the customer was not an eligible customer-generator. When those same
157 customer-generators are net generators during any discrete time of use period, the net
158 kilowatthours produced shall be valued at the same price per kilowatthour as the electric
159 service provider would charge for retail kilowatthour sales during that same time of use
160 period. If the eligible customer-generator's time of use electrical meter is unable to
161 measure the flow of electricity in two directions, paragraph (3) of subdivision (b) shall
162 apply.

163 (C) For all residential and small commercial customer-generators and for each
164 billing period, the net balance of moneys owed to the electric service provider for net
165 consumption of electricity or credits owed to the customer-generator for net generation of
166 electricity shall be carried forward as a monetary value until the end of each 12-month
167 period. For all commercial, industrial, and agricultural customer-generators the net balance
168 of moneys owed shall be paid in accordance with the electric service provider's normal
169 billing cycle, except that if the commercial, industrial, or agricultural customer-generator
170 is a net electricity producer over a normal billing cycle, any excess kilowatthours
171 generated during the billing cycle shall be carried over to the following billing period as a
172 monetary value, calculated according to the procedures set forth in this section, and appear
173 as a credit on the customer-generator's account, until the end of the annual period when
174 paragraph (3) shall apply.

175 (3) At the end of each 12-month period, where the electricity generated by the
176 eligible customer-generator during the 12-month period exceeds the electricity supplied by

177 the electric service provider during that same period, the eligible customer-generator is a
178 net electricity producer and the electric service provider shall retain any excess
179 kilowatthours generated during the prior 12-month period. The eligible customer-generator
180 shall ~~not~~ be owed any compensation for those excess kilowatthours, ~~unless the electric~~
181 ~~service provider enters into a purchase agreement with the eligible customer-generator for~~
182 ~~those excess kilowatthours.~~ The compensation owed and to be paid in accordance with
183 the electric service provider's normal billing cycle to the net electricity producer and
184 eligible customer-generator for the excess kilowatthours generated shall be the monetary
185 value of the credit, described in paragraph (C), on the eligible customer-generator's
186 account at the end of each 12-month period.

187 (4) The electric service provider shall provide every eligible residential or small
188 commercial customer-generator with net electricity consumption information with each
189 regular bill. That information shall include the current monetary balance owed the electric
190 service provider for net electricity consumed since the last 12-month period ended.
191 Notwithstanding this subdivision, an electric service provider shall permit that customer to
192 pay monthly for net energy consumed.

193 (5) If an eligible residential or small commercial customer-generator terminates the
194 customer relationship with the electric service provider, the electric service provider shall
195 reconcile the eligible customer-generator's consumption and production of electricity
196 during any part of a 12-month period following the last reconciliation, according to the
197 requirements set forth in this subdivision, except that those requirements shall apply only
198 to the months since the most recent 12-month bill.

199 (6) If an electric service provider providing net metering to a residential or small
200 commercial customer-generator ceases providing that electrical service to that customer
201 during any 12-month period, and the customer-generator enters into a new net metering
202 contract or tariff with a new electric service provider, the 12-month period, with respect to
203 that new electric service provider, shall commence on the date on which the new electric
204 service provider first supplies electric service to the customer-generator.

205 (i) Notwithstanding any other provisions of this section, the following provisions
206 shall apply to an eligible customer-generator with a capacity of more than 10 kilowatts, but
207 not exceeding one megawatt, that receives electrical service from a local publicly owned
208 electric utility, as defined in Section 9604, that has elected to utilize a co-energy metering
209 program unless the electric service provider chooses to provide service for eligible
210 customer-generators with a capacity of more than 10 kilowatts in accordance with
211 subdivisions (g) and (h):

212 (1) The eligible customer-generator shall be required to utilize a meter, or multiple
213 meters, capable of separately measuring electricity flow in both directions. All meters shall
214 provide "time-of-use" measurements of electricity flow, and the customer shall take
215 service on a time-of-use rate schedule. If the existing meter of the eligible customer-
216 generator is not a time-of-use meter or is not capable of measuring total flow of energy in
217 both directions, the eligible customer-generator shall be responsible for all expenses
218 involved in purchasing and installing a meter that is both time-of-use and able to measure
219 total electricity flow in both directions. This subdivision shall not restrict the ability of an
220 eligible customer-generator to utilize any economic incentives provided by a government
221 agency or the electric service provider to reduce its costs for purchasing and installing a

222 time-of-use meter.

223 (2) The consumption of electricity from the electric service provider shall result in a
224 cost to the eligible customer-generator to be priced in accordance with the standard rate
225 charged to the eligible customer-generator in accordance with the rate structure to which
226 the customer would be assigned if the customer did not use an eligible solar or wind
227 electrical generating facility. The generation of electricity provided to the electric service
228 provider shall result in a credit to the eligible customer-generator and shall be priced in
229 accordance with the generation component, established under the applicable structure to
230 which the customer would be assigned if the customer did not use an eligible solar or wind
231 electrical generating facility.

232 (3) All costs and credits shall be shown on the eligible customer-generator's bill for
233 each billing period. In any months in which the eligible customer-generator has been a net
234 consumer of electricity calculated on the basis of value determined pursuant to paragraph
235 (2), the customer-generator shall owe to the electric service provider the balance of
236 electricity costs and credits during that billing period. In any billing period in which the
237 eligible customer-generator has been a net producer of electricity calculated on the basis of
238 value determined pursuant to paragraph (2), the electric service provider shall owe to the
239 eligible customer-generator the balance of electricity costs and credits during that billing
240 period. Any net credit to the eligible customer-generator of electricity costs may be carried
241 forward to subsequent billing periods, provided that an electric service provider may
242 choose to carry the credit over as a kilowatt hour credit consistent with the provisions of
243 any applicable tariff, including any differences attributable to the time of generation of the
244 electricity. At the end of each 12-month period, the electric service provider may reduce
245 any net credit due to the eligible customer-generator to zero.

246 (j) A solar or wind turbine electrical generating system, or a hybrid system of both,
247 used by an eligible customer-generator shall meet all applicable safety and performance
248 standards established by the National Electrical Code, the Institute of Electrical and
249 Electronics Engineers, and accredited testing laboratories such as Underwriters
250 Laboratories and, where applicable, rules of the Public Utilities Commission regarding
251 safety and reliability. A customer-generator whose solar or wind turbine electrical
252 generating system, or a hybrid system of both, meets those standards and rules shall not be
253 required to install additional controls, perform or pay for additional tests, or purchase
254 additional liability insurance.

255 (k) If the commission determines that there are cost or revenue obligations for an
256 electric corporation, as defined in Section 218, that may not be recovered from customer-
257 generators acting pursuant to this section, those obligations shall remain within the
258 customer class from which any shortfall occurred and may not be shifted to any other
259 customer class. Net-metering and co-metering customers shall not be exempt from the
260 public benefits charge. In its report to the Legislature, the commission shall examine
261 different methods to ensure that the public benefits charge remains a nonbypassable
262 charge.

263 (l) A net metering customer shall reimburse the Department of Water Resources for
264 all charges that would otherwise be imposed on the customer by the commission to recover
265 bond-related costs pursuant to an agreement between the commission and the Department
266 of Water Resources pursuant to Section 80110 of the Water Code, as well as the costs of

267 the department equal to the share of the department's estimated net unavoidable power
268 purchase contract costs attributable to the customer. The commission shall incorporate the
269 determination into an existing proceeding before the commission, and shall ensure that the
270 charges are nonbypassable. Until the commission has made a determination regarding the
271 nonbypassable charges, net metering shall continue under the same rules, procedures,
272 terms, and conditions as were applicable on December 31, 2002.

273 (m) In implementing the requirements of subdivisions (k) and (l), a customer-
274 generator shall not be required to replace its existing meter except as set forth in paragraph
275 (3) of subdivision (b), nor shall the electric service provider require additional
276 measurement of usage beyond that which is necessary for customers in the same rate class
277 as the eligible customer-generator.

278 (n) On or before January 1, 2005, the commission shall submit a report to the
279 Governor and the Legislature that assesses the economic and environmental costs and
280 benefits of net metering to customer-generators, ratepayers, and utilities, including any
281 beneficial and adverse effects on public benefit programs and special purpose surcharges.
282 The report shall be prepared by an independent party under contract with the commission.

283 (o) It is the intent of the Legislature that the Treasurer incorporate net energy
284 metering and co-energy metering projects undertaken pursuant to this section as
285 sustainable building methods or distributive energy technologies for purposes of evaluating
286 low-income housing projects.

(Proposed new language underlined; language to be deleted stricken.)

PROPOSER: Bar Association of Northern San Diego County

STATEMENT OF REASONS

Existing Law: Public Utilities Code section 2827 (net metering law) requires the utilities to measure the production and consumption of electricity by private renewable (solar and wind) energy producers ("customer-generators"). The law applies to residential customers, small business customers, commercial, industrial and agricultural customers producing solar or wind energy for a utility grid-tie system. A solar customer-generator will produce net excess electricity (more than consumed) during the day that flows to the utility grid. The utility then sells that electricity to other customers at full retail price. The same customer-generator will receive electricity from the utility grid at night and pay the full retail price. The utility meter measures the electricity flowing to and from the utility grid, and the utility bills or credits the customer-generator each month for the net electricity consumed or produced. The monthly bills and credits are carried over from month to month without any payment from either party. At the end of each 12-month period, the customer-generator pays the retail price for the net electricity consumed during the annual period. However, the utility receives a gift of any net excess electricity produced by the customer-generator at the end of each year. Any payment by the utility for net excess electricity produced by a customer-generator is voluntary. However, the utility sells this free net excess electricity to other customers at full retail price for a 100% profit. Only a few local municipal utilities like the City of Palo Alto have volunteered to pay for the net excess solar or wind electricity generated by customers.

This Resolution: Would amend Public Utilities Code section 2827, subdivision (h)(3), to create equal treatment for customer-generators by making payment mandatory rather than voluntary for the 100% clean net excess solar and wind energy produced by eligible customers during a 12-month period. The monetary value of the net excess electricity generated is computed and shown as a credit on each monthly bill under existing law. (Pub. Util. Code, § 2827, subd. (h)(2)(C).) This resolution makes payment of this credit mandatory rather than voluntary.

The Problem: A double standard exists that results in unequal treatment of solar and wind customer-generators. The customer-generator pays full retail price for electricity if a net consumer in a given year. However, the customer-generator makes a gift to the utility of net excess electricity produced each year unless the utility volunteers to pay. No utilities have volunteered to pay except for a few local non-profit municipal utilities like the City of Palo Alto. The utilities then sell this free net excess electricity to other customers at full retail price for a 100% profit. This creates unequal treatment of customers and is a disincentive for the installation of solar and wind energy systems that produce 100% renewable and clean energy. The smoke stack energy produced by the utilities is neither renewable nor clean. The amendment will create equal treatment of the parties and an incentive for installing larger 100% clean solar and wind energy systems that will benefit the environment and the economy and improve the quality of life.

IMPACT STATEMENT

This resolution does not affect any other law, statute or rule.

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