

AMENDED IN ASSEMBLY APRIL 16, 2009

CALIFORNIA LEGISLATURE—2009—10 REGULAR SESSION

ASSEMBLY BILL

No. 560

Introduced by Assembly Member Skinner

February 25, 2009

An act to amend Section 2827 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 560, as amended, Skinner. Net energy metering.

Existing law relative to private energy producers requires every electric distribution utility or cooperative, as defined, to make available to an eligible customer-generator, as defined, a standard contract or tariff for net energy metering on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds 2.5% of the electric distribution utility or cooperative's aggregate customer peak demand.

This bill would require that the standard contract or tariff for net energy metering be offered on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds ~~an unspecified percent~~ 10% of the electric distribution utility or cooperative's aggregate customer peak demand.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Section 2827 of the Public Utilities Code is
2 amended to read:

1 2827. (a) The Legislature finds and declares that a program
2 to provide net energy metering, co-energy metering, and wind
3 energy co-metering for eligible customer-generators is one way
4 to encourage substantial private investment in renewable energy
5 resources, stimulate in-state economic growth, reduce demand for
6 electricity during peak consumption periods, help stabilize
7 California's energy supply infrastructure, enhance the continued
8 diversification of California's energy resource mix, and reduce
9 interconnection and administrative costs for electricity suppliers.

10 (b) As used in this section, the following terms have the
11 following meanings:

12 (1) "Co-energy metering" means a program that is the same in
13 all other respects as a net energy metering program, except that
14 the local publicly owned electric utility has elected to apply a
15 generation-to-generation energy and time-of-use credit formula
16 as provided in subdivision (i).

17 (2) "Electrical cooperative" means an electrical cooperative as
18 defined in Section 2776.

19 (3) "Electric distribution utility or cooperative" means an
20 electrical corporation, a local publicly owned electric utility, or an
21 electrical cooperative, or any other entity, except an electric service
22 provider, that offers electrical service. This section shall not apply
23 to a local publicly owned electric utility that serves more than
24 750,000 customers and that also conveys water to its customers.

25 (4) "Eligible customer-generator" means a residential, small
26 commercial customer as defined in subdivision (h) of Section 331,
27 commercial, industrial, or agricultural customer of an electricity
28 distribution utility or cooperative, who uses a solar or a wind
29 turbine electrical generating facility, or a hybrid system of both,
30 with a capacity of not more than one megawatt that is located on
31 the customer's owned, leased, or rented premises, is interconnected
32 and operates in parallel with the electric grid, and is intended
33 primarily to offset part or all of the customer's own electrical
34 requirements.

35 (5) "Net energy metering" means measuring the difference
36 between the electricity supplied through the electric grid and the
37 electricity generated by an eligible customer-generator and fed
38 back to the electric grid over a 12-month period as described in
39 subdivision (h). An eligible customer-generator who already owns
40 an existing solar or wind turbine electrical generating facility, or

1 a hybrid system of both, is eligible to receive net energy metering
2 service in accordance with this section.

3 (6) “Ratemaking authority” means, for an electrical corporation,
4 electrical cooperative, or electric service provider, the commission,
5 and for a local publicly owned electric utility, the local elected
6 body responsible for setting the rates of the local publicly owned
7 utility.

8 (7) “Wind energy co-metering” means any wind energy project
9 greater than 50 kilowatts, but not exceeding one megawatt, where
10 the difference between the electricity supplied through the electric
11 grid and the electricity generated by an eligible customer-generator
12 and fed back to the electric grid over a 12-month period is as
13 described in subdivision (h). Wind energy co-metering shall be
14 accomplished pursuant to Section 2827.8.

15 (c) (1) Every electricity distribution utility or cooperative shall
16 develop a standard contract or tariff providing for net energy
17 metering, and shall make this standard contract or tariff available
18 to eligible customer-generators, upon request, on a
19 first-come-first-served basis until the time that the total rated
20 generating capacity used by eligible customer-generators exceeds
21 10 percent of the electricity distribution utility or cooperative’s
22 aggregate customer peak demand. Net energy metering shall be
23 accomplished using a single meter capable of registering the flow
24 of electricity in two directions. An additional meter or meters to
25 monitor the flow of electricity in each direction may be installed
26 with the consent of the customer-generator, at the expense of the
27 electricity distribution utility or cooperative, and the additional
28 metering shall be used only to provide the information necessary
29 to accurately bill or credit the customer-generator pursuant to
30 subdivision (h), or to collect solar or wind electric generating
31 system performance information for research purposes. If the
32 existing electrical meter of an eligible customer-generator is not
33 capable of measuring the flow of electricity in two directions, the
34 customer-generator shall be responsible for all expenses involved
35 in purchasing and installing a meter that is able to measure
36 electricity flow in two directions. If an additional meter or meters
37 are installed, the net energy metering calculation shall yield a result
38 identical to that of a single meter.

39 (2) (A) On an annual basis, beginning in 2003, every electricity
40 distribution utility or cooperative shall make available to the

1 ratemaking authority information on the total rated generating
2 capacity used by eligible customer-generators that are customers
3 of that provider in the provider's service area.

4 (B) An electric service provider operating pursuant to Section
5 394 shall make available to the ratemaking authority the
6 information required by this paragraph for each eligible
7 customer-generator that is their customer for each service area of
8 an electric corporation, local publicly owned electric utility, or
9 electrical cooperative, in which the customer has net energy
10 metering.

11 (C) The ratemaking authority shall develop a process for making
12 the information required by this paragraph available to electricity
13 distribution utilities and cooperatives, and for using that
14 information to determine when, pursuant to paragraphs (1) and
15 (3), an electricity distribution utility or cooperative is not obligated
16 to provide net energy metering to additional customer-generators
17 in its service area.

18 (3) An electricity distribution utility or cooperative is not
19 obligated to provide net energy metering to additional
20 customer-generators in its service area when the combined total
21 peak demand of all customer-generators served by all the electricity
22 distribution utilities or cooperatives in that service area furnishing
23 net energy metering to eligible customer-generators exceeds ~~—~~
24 10 percent of the aggregate customer peak demand of those
25 electricity distribution utilities or cooperatives.

26 (4) By January 1, 2010, the commission, in consultation with
27 the Energy Commission, shall submit a report to the Governor and
28 the Legislature on the costs and benefits of net energy metering,
29 wind energy co-metering, and co-energy metering to participating
30 customers and nonparticipating customers and with options to
31 replace the economic costs and benefits of net energy metering,
32 wind energy co-metering, and co-energy metering with a
33 mechanism that more equitably balances the interests of
34 participating and nonparticipating customers, and that incorporates
35 the findings of the report on economic and environmental costs
36 and benefits of net metering required by subdivision (n).

37 (d) Every electricity distribution utility or cooperative shall
38 make all necessary forms and contracts for net energy metering
39 service available for download from the Internet.

1 (e) (1) Every electricity distribution utility or cooperative shall
2 ensure that requests for establishment of net energy metering are
3 processed in a time period not exceeding that for similarly situated
4 customers requesting new electric service, but not to exceed 30
5 working days from the date it receives a completed application
6 form for net energy metering service, including a signed
7 interconnection agreement from an eligible customer-generator
8 and the electric inspection clearance from the governmental
9 authority having jurisdiction.

10 (2) Every electricity distribution utility or cooperative shall
11 ensure that requests for an interconnection agreement from an
12 eligible customer-generator are processed in a time period not to
13 exceed 30 working days from the date it receives a completed
14 application form from the eligible customer-generator for an
15 interconnection agreement.

16 (3) If an electricity distribution utility or cooperative is unable
17 to process a request within the allowable timeframe pursuant to
18 paragraph (1) or (2), it shall notify the eligible customer-generator
19 and the ratemaking authority of the reason for its inability to
20 process the request and the expected completion date.

21 (f) (1) If a customer participates in direct transactions pursuant
22 to paragraph (1) of subdivision (b) of Section 365 with an electric
23 service provider that does not provide distribution service for the
24 direct transactions, the electricity distribution utility or cooperative
25 that provides distribution service for an eligible customer-generator
26 is not obligated to provide net energy metering to the customer.

27 (2) If a customer participates in direct transactions pursuant to
28 paragraph (1) of subdivision (b) of Section 365 with an electric
29 service provider, and the customer is an eligible
30 customer-generator, the electricity distribution utility or cooperative
31 that provides distribution service for the direct transactions may
32 recover from the customer's electric service provider the
33 incremental costs of metering and billing service related to net
34 energy metering in an amount set by the ratemaking authority.

35 (g) Except for the time-variant kilowatthour pricing portion of
36 any tariff adopted by the commission pursuant to paragraph (4) of
37 subdivision (a) of Section 2851, each net energy metering contract
38 or tariff shall be identical, with respect to rate structure, all retail
39 rate components, and any monthly charges, to the contract or tariff
40 to which the same customer would be assigned if the customer did

1 not use an eligible solar or wind electrical generating facility,
2 except that eligible customer-generators shall not be assessed
3 standby charges on the electrical generating capacity or the
4 kilowatthour production of an eligible solar or wind electrical
5 generating facility. The charges for all retail rate components for
6 eligible customer-generators shall be based exclusively on the
7 customer-generator's net kilowatthour consumption over a
8 12-month period, without regard to the customer-generator's choice
9 as to whom it purchases electricity that is not self-generated. Any
10 new or additional demand charge, standby charge, customer charge,
11 minimum monthly charge, interconnection charge, or any other
12 charge that would increase an eligible customer-generator's costs
13 beyond those of other customers who are not eligible
14 customer-generators in the rate class to which the eligible
15 customer-generator would otherwise be assigned if the customer
16 did not own, lease, rent, or otherwise operate an eligible solar or
17 wind electrical generating facility are contrary to the intent of this
18 section, and shall not form a part of net energy metering contracts
19 or tariffs.

20 (h) For eligible residential and small commercial
21 customer-generators, the net energy metering calculation shall be
22 made by measuring the difference between the electricity supplied
23 to the eligible customer-generator and the electricity generated by
24 the eligible customer-generator and fed back to the electric grid
25 over a 12-month period. The following rules shall apply to the
26 annualized net metering calculation:

27 (1) The eligible residential or small commercial
28 customer-generator shall, at the end of each 12-month period
29 following the date of final interconnection of the eligible
30 customer-generator's system with an electricity distribution utility
31 or cooperative, and at each anniversary date thereafter, be billed
32 for electricity used during that 12-month period. The electricity
33 distribution utility or cooperative shall determine if the eligible
34 residential or small commercial customer-generator was a net
35 consumer or a net producer of electricity during that period.

36 (2) At the end of each 12-month period, where the electricity
37 supplied during the period by the electricity distribution utility or
38 cooperative exceeds the electricity generated by the eligible
39 residential or small commercial customer-generator during that
40 same period, the eligible residential or small commercial

1 customer-generator is a net electricity consumer and the electricity
2 distribution utility or cooperative shall be owed compensation for
3 the eligible customer-generator’s net kilowatthour consumption
4 over that 12-month period. The compensation owed for the eligible
5 residential or small commercial customer-generator’s consumption
6 shall be calculated as follows:

7 (A) For all eligible customer-generators taking service under
8 contracts or tariffs employing “baseline” and “over baseline” rates
9 or charges, any net monthly consumption of electricity shall be
10 calculated according to the terms of the contract or tariff to which
11 the same customer would be assigned to, or be eligible for, if the
12 customer was not an eligible customer-generator. If those same
13 customer-generators are net generators over a billing period, the
14 net kilowatthours generated shall be valued at the same price per
15 kilowatthour as the electricity distribution utility or cooperative
16 would charge for the baseline quantity of electricity during that
17 billing period, and if the number of kilowatthours generated
18 exceeds the baseline quantity, the excess shall be valued at the
19 same price per kilowatthour as the electricity distribution utility
20 or cooperative would charge for electricity over the baseline
21 quantity during that billing period.

22 (B) For all eligible customer-generators taking service under
23 contracts or tariffs employing “time-of-use” rates or charges, any
24 net monthly consumption of electricity shall be calculated
25 according to the terms of the contract or tariff to which the same
26 customer would be assigned to, or be eligible for, if the customer
27 was not an eligible customer-generator. When those same
28 customer-generators are net generators during any discrete
29 time-of-use period, the net kilowatthours produced shall be valued
30 at the same price per kilowatthour as the electricity distribution
31 utility or cooperative would charge for retail kilowatthour sales
32 during that same “time-of-use” period. If the eligible
33 customer-generator’s “time-of-use” electrical meter is unable to
34 measure the flow of electricity in two directions paragraph (1) of
35 subdivision (c) shall apply.

36 (C) For all eligible residential and small commercial
37 customer-generators and for each billing period, the net balance
38 of moneys owed to the electricity distribution utility or cooperative
39 for net consumption of electricity or credits owed to the eligible
40 customer-generator for net generation of electricity shall be carried

1 forward as a monetary value until the end of each 12-month period.
2 For all eligible commercial, industrial, and agricultural
3 customer-generators, the net balance of moneys owed shall be paid
4 in accordance with the electricity distribution utility or
5 cooperative's normal billing cycle, except that if the eligible
6 commercial, industrial, or agricultural customer-generator is a net
7 electricity producer over a normal billing cycle, any excess
8 kilowatthours generated during the billing cycle shall be carried
9 over to the following billing period as a monetary value, calculated
10 according to the procedures set forth in this section, and appear as
11 a credit on the eligible customer-generator's account, until the end
12 of the annual period when paragraph (3) shall apply.

13 (3) At the end of each 12-month period, where the electricity
14 generated by the eligible customer-generator during the 12-month
15 period exceeds the electricity supplied by the electricity distribution
16 utility or cooperative during that same period, the eligible
17 customer-generator is a net electricity producer and the electricity
18 distribution utility or cooperative shall retain any excess
19 kilowatthours generated during the prior 12-month period. The
20 eligible customer-generator shall not be owed any compensation
21 for those excess kilowatthours unless the electricity distribution
22 utility or cooperative enters into a purchase agreement with the
23 eligible customer-generator for those excess kilowatthours.

24 (4) The electricity distribution utility or cooperative shall provide
25 every eligible residential or small commercial customer-generator
26 with net electricity consumption information with each regular
27 bill. That information shall include the current monetary balance
28 owed the electricity distribution utility or cooperative for net
29 electricity consumed, or the current amount of excess electricity
30 produced, since the last 12-month period ended. Notwithstanding
31 this subdivision, an electricity distribution utility or cooperative
32 shall permit that customer to pay monthly for net energy consumed.

33 (5) If an eligible residential or small commercial
34 customer-generator terminates the customer relationship with the
35 electricity distribution utility or cooperative, the electricity
36 distribution utility or cooperative shall reconcile the eligible
37 customer-generator's consumption and production of electricity
38 during any part of a 12-month period following the last
39 reconciliation, according to the requirements set forth in this

1 subdivision, except that those requirements shall apply only to the
2 months since the most recent 12-month bill.

3 (6) If an electric service provider or electricity distribution utility
4 or cooperative providing net energy metering to a residential or
5 small commercial customer-generator ceases providing that electric
6 service to that customer during any 12-month period, and the
7 customer-generator enters into a new net energy metering contract
8 or tariff with a new electric service provider or electricity
9 distribution utility or cooperative, the 12-month period, with respect
10 to that new electric service provider or electricity distribution utility
11 or cooperative, shall commence on the date on which the new
12 electric service provider or electricity distribution utility or
13 cooperative first supplies electric service to the customer-generator.

14 (i) Notwithstanding any other provisions of this section, the
15 following provisions shall apply to an eligible customer-generator
16 with a capacity of more than 10 kilowatts, but not exceeding one
17 megawatt, that receives electric service from a local publicly owned
18 electric utility that has elected to utilize a co-energy metering
19 program unless the local publicly owned electric utility chooses
20 to provide service for eligible customer-generators with a capacity
21 of more than 10 kilowatts in accordance with subdivisions (g) and
22 (h):

23 (1) The eligible customer-generator shall be required to utilize
24 a meter, or multiple meters, capable of separately measuring
25 electricity flow in both directions. All meters shall provide
26 “time-of-use” measurements of electricity flow, and the customer
27 shall take service on a time-of-use rate schedule. If the existing
28 meter of the eligible customer-generator is not a time-of-use meter
29 or is not capable of measuring total flow of energy in both
30 directions, the eligible customer-generator shall be responsible for
31 all expenses involved in purchasing and installing a meter that is
32 both time-of-use and able to measure total electricity flow in both
33 directions. This subdivision shall not restrict the ability of an
34 eligible customer-generator to utilize any economic incentives
35 provided by a government agency or an electricity distribution
36 utility or cooperative to reduce its costs for purchasing and
37 installing a time-of-use meter.

38 (2) The consumption of electricity from the local publicly owned
39 electric utility shall result in a cost to the eligible
40 customer-generator to be priced in accordance with the standard

1 rate charged to the eligible customer-generator in accordance with
2 the rate structure to which the customer would be assigned if the
3 customer did not use an eligible solar or wind electrical generating
4 facility. The generation of electricity provided to the local publicly
5 owned electric utility shall result in a credit to the eligible
6 customer-generator and shall be priced in accordance with the
7 generation component, established under the applicable structure
8 to which the customer would be assigned if the customer did not
9 use an eligible solar or wind electrical generating facility.

10 (3) All costs and credits shall be shown on the eligible
11 customer-generator's bill for each billing period. In any months
12 in which the eligible customer-generator has been a net consumer
13 of electricity calculated on the basis of value determined pursuant
14 to paragraph (2), the customer-generator shall owe to the local
15 publicly owned electric utility the balance of electricity costs and
16 credits during that billing period. In any billing period in which
17 the eligible customer-generator has been a net producer of
18 electricity calculated on the basis of value determined pursuant to
19 paragraph (2), the local publicly owned electric utility shall owe
20 to the eligible customer-generator the balance of electricity costs
21 and credits during that billing period. Any net credit to the eligible
22 customer-generator of electricity costs may be carried forward to
23 subsequent billing periods, provided that a local publicly owned
24 electric utility may choose to carry the credit over as a kilowatthour
25 credit consistent with the provisions of any applicable contract or
26 tariff, including any differences attributable to the time of
27 generation of the electricity. At the end of each 12-month period,
28 the local publicly owned electric utility may reduce any net credit
29 due to the eligible customer-generator to zero.

30 (j) A solar or wind turbine electrical generating system, or a
31 hybrid system of both, used by an eligible customer-generator shall
32 meet all applicable safety and performance standards established
33 by the National Electrical Code, the Institute of Electrical and
34 Electronics Engineers, and accredited testing laboratories, including
35 Underwriters Laboratories and, where applicable, rules of the
36 commission regarding safety and reliability. A customer-generator
37 whose solar or wind turbine electrical generating system, or a
38 hybrid system of both, meets those standards and rules shall not
39 be required to install additional controls, perform or pay for
40 additional tests, or purchase additional liability insurance.

1 (k) If the commission determines that there are cost or revenue
2 obligations for an electric corporation, as defined in Section 218,
3 that may not be recovered from customer-generators acting
4 pursuant to this section, those obligations shall remain within the
5 customer class from which any shortfall occurred and may not be
6 shifted to any other customer class. Net energy metering and
7 co-energy metering customers shall not be exempt from the public
8 goods charges imposed pursuant to Article 7 (commencing with
9 Section 381), Article 8 (commencing with Section 385), or Article
10 15 (commencing with Section 399) of Chapter 2.3 of Part 1. In its
11 report to the Legislature, the commission shall examine different
12 methods to ensure that the public goods charges remain
13 nonbypassable.

14 (l) A net energy metering, co-energy metering, or wind energy
15 co-metering customer shall reimburse the Department of Water
16 Resources for all charges that would otherwise be imposed on the
17 customer by the commission to recover bond-related costs pursuant
18 to an agreement between the commission and the Department of
19 Water Resources pursuant to Section 80110 of the Water Code,
20 as well as the costs of the department equal to the share of the
21 department's estimated net unavoidable power purchase contract
22 costs attributable to the customer. The commission shall
23 incorporate the determination into an existing proceeding before
24 the commission, and shall ensure that the charges are
25 nonbypassable. Until the commission has made a determination
26 regarding the nonbypassable charges, net energy metering,
27 co-energy metering, and wind energy co-metering shall continue
28 under the same rules, procedures, terms, and conditions as were
29 applicable on December 31, 2002.

30 (m) In implementing the requirements of subdivisions (k) and
31 (l), a customer-generator shall not be required to replace its existing
32 meter except as set forth in paragraph (1) of subdivision (c), nor
33 shall the electricity distribution utility or cooperative require
34 additional measurement of usage beyond that which is necessary
35 for customers in the same rate class as the eligible
36 customer-generator.

37 (n) It is the intent of the Legislature that the Treasurer
38 incorporate net energy metering, co-energy metering, and wind
39 energy co-metering projects undertaken pursuant to this section

- 1 as sustainable building methods or distributive energy technologies
- 2 for purposes of evaluating low-income housing projects.

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