

**Introduced by Senators Bowen
(Coauthor: Senator Murray)**

February 21, 2003

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

LEGISLATIVE COUNSEL'S DIGEST

SB 874, as introduced, Bowen. Net energy metering charges.

Existing law requires every electric service provider to develop a standard contract or tariff providing for net energy metering, and to make this contract available to eligible customer-generators, upon request. Existing law requires a net metering customer to reimburse the Department of Water Resources for all charges that would otherwise be imposed on the customer by the commission to recover bond-related costs pursuant to an agreement between the commission and the department and the costs of the department equal to the share of the department's estimated net unavoidable power purchase contract costs attributable to the customer. Existing law requires the commission to incorporate the determination into an existing proceeding before the commission, and to ensure that the charges are nonbypassable. Existing law requires net metering to continue under the same rules, procedures, terms, and conditions as were applicable on December 31, 2002, until the commission has made the determination regarding the nonbypassable charges.

This bill would exempt from those charges a net metering customer who had a net metering system installed before January 1, 2003, or who signed a contract for the installation of a net metering system before January 1, 2003.

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:
3 2827. (a) The Legislature finds and declares that a program
4 to provide net energy metering for eligible customer-generators is
5 one way to encourage substantial private investment in renewable
6 energy resources, stimulate in-state economic growth, reduce
7 demand for electricity during peak consumption periods, help
8 stabilize California’s energy supply infrastructure, enhance the
9 continued diversification of California’s energy resource mix, and
10 reduce interconnection and administrative costs for electricity
11 suppliers.
12 (b) As used in this section, the following definitions apply:
13 (1) “Electric service provider” means an electrical
14 corporation, as defined in Section 218, a local publicly owned
15 electric utility, as defined in Section 9604, or an electrical
16 cooperative, as defined in Section 2776, or any other entity that
17 offers electrical service. This section ~~shall~~ *does* not apply to a local
18 publicly owned electric utility, as defined in Section 9604 of the
19 Public Utilities Code, that serves more than 750,000 customers
20 and that also conveys water to its customers.
21 (2) “Eligible customer-generator” means a residential, small
22 commercial customer as defined in subdivision (h) of Section 331,
23 commercial, industrial, or agricultural customer of an electric
24 service provider, who uses a solar or a wind turbine electrical
25 generating facility, or a hybrid system of both, with a capacity of
26 not more than one megawatt that is located on the customer’s
27 owned, leased, or rented premises, is interconnected and operates
28 in parallel with the electric grid, and is intended primarily to offset
29 part or all of the customer’s own electrical requirements.
30 (3) “Net energy metering” means measuring the difference
31 between the electricity supplied through the electric grid and the
32 electricity generated by an eligible customer-generator and fed
33 back to the electric grid over a 12-month period as described in
34 subdivision (h). Net energy metering shall be accomplished using
35 a single meter capable of registering the flow of electricity in two



1 directions. An additional meter or meters to monitor the flow of
2 electricity in each direction may be installed with the consent of
3 the customer-generator, at the expense of the electric service
4 provider, and the additional metering shall be used only to provide
5 the information necessary to accurately bill or credit the
6 customer-generator pursuant to subdivision (h), or to collect solar
7 or wind electric generating system performance information for
8 research purposes. If the existing electrical meter of an eligible
9 customer-generator is not capable of measuring the flow of
10 electricity in two directions, the customer-generator shall be
11 responsible for all expenses involved in purchasing and installing
12 a meter that is able to measure electricity flow in two directions.
13 If an additional meter or meters are installed, the net energy
14 metering calculation shall yield a result identical to that of a single
15 meter. An eligible customer-generator who already owns an
16 existing solar or wind turbine electrical generating facility, or a
17 hybrid system of both, is eligible to receive net energy metering
18 service in accordance with this section.

19 (4) “Wind energy co-metering” means any wind energy
20 project greater than 50 kilowatts, but not exceeding one megawatt,
21 where the difference between the electricity supplied through the
22 electric grid and the electricity generated by an eligible
23 customer-generator and fed back to the electric grid over a
24 12-month period is as described in subdivision (h). Wind energy
25 co-metering shall be accomplished pursuant to Section 2827.8.

26 (5) “Co-energy metering” means a program that is the same in
27 all other respects as a net energy metering program, except that the
28 local publicly owned electric utility, as defined in Section 9604,
29 has elected to apply a generation-to-generation energy and
30 time-of-use credit formula as provided in subdivision (i).

31 (6) “Ratemaking authority” means, for an electrical
32 corporation as defined in Section 218, or an electrical cooperative
33 as defined in Section 2776, the commission, and for a local
34 publicly owned electric utility as defined in Section 9604, the local
35 elected body responsible for regulating the rates of the local
36 publicly owned utility.

37 (c) (1) Every electric service provider shall develop a standard
38 contract or tariff providing for net energy metering, and shall make
39 this contract available to eligible customer-generators, upon
40 request, on a first-come-first-served basis until the time that the



1 total rated generating capacity used by eligible
2 customer-generators exceeds one-half of 1 percent of the electric
3 service provider's aggregate customer peak demand.

4 (2) On an annual basis, beginning in 2003, every electric service
5 provider shall make available to the ratemaking authority
6 information on the total rated generating capacity used by eligible
7 customer-generators that are customers of that provider in the
8 provider's service area. For those electric service providers who
9 are operating pursuant to Section 394, they shall make available
10 to the ratemaking authority the information required by this
11 paragraph for each eligible customer-generator that is their
12 customer for each service area of an electric corporation, local
13 publicly owned electric utility, or electrical cooperative, in which
14 the customer has net energy metering. The ratemaking authority
15 shall develop a process for making the information required by this
16 paragraph available to energy service providers, and for using that
17 information to determine when, pursuant to paragraph (3), a
18 service provider is not obligated to provide net energy metering to
19 additional customer-generators in its service area.

20 (3) Notwithstanding paragraph (1), an electric service provider
21 is not obligated to provide net energy metering to additional
22 customer-generators in its service area when the combined total
23 peak demand of all customer-generators served by all the electric
24 service providers in that service area furnishing net energy
25 metering to eligible customer-generators exceeds one-half of 1
26 percent of the aggregate customer peak demand of those electric
27 service providers.

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

31 (e) (1) Every electric service provider shall ensure that
32 requests for establishment of net energy metering are processed in
33 a time period not exceeding that for similarly situated customers
34 requesting new electric service, but not to exceed 30 working days
35 from the date the electric service provider receives a completed
36 application form for net metering service, including a signed
37 interconnection agreement from an eligible customer-generator
38 and the electric inspection clearance from the governmental
39 authority having jurisdiction. If an electric service provider is
40 unable to process the request within the allowable timeframe, the



1 electric service provider shall notify both the customer-generator
2 and the ratemaking authority of the reason for its inability to
3 process the request and the expected completion date.

4 (2) Electric service providers shall ensure that requests for an
5 interconnection agreement from an eligible customer-generator
6 are processed in a time period not to exceed 30 working days from
7 the date the electric service provider receives a completed
8 application form from the eligible customer-generator for an
9 interconnection agreement. If an electric service provider is
10 unable to process the request within the allowable timeframe, the
11 electric service provider shall notify the customer-generator and
12 the ratemaking authority of the reason for its inability to process
13 the request and the expected completion date.

14 (f) (1) If a customer participates in direct transactions pursuant
15 to paragraph (1) of subdivision (b) of Section 365 with an electric
16 supplier that does not provide distribution service for the direct
17 transactions, the service provider that provides distribution service
18 for an eligible customer-generator is not obligated to provide net
19 energy metering to the customer.

20 (2) If a customer participates in direct transactions pursuant to
21 paragraph (1) of subdivision (b) of Section 365 with an electric
22 supplier, and the customer is an eligible customer-generator, the
23 service provider that provides distribution service for the direct
24 transactions may recover from the customer's electric service
25 provider the incremental costs of metering and billing service
26 related to net energy metering in an amount set by the ratemaking
27 authority.

28 (g) Each net energy metering contract or tariff shall be
29 identical, with respect to rate structure, all retail rate components,
30 and any monthly charges, to the contract or tariff to which the same
31 customer would be assigned if the customer did not use an eligible
32 solar or wind electrical generating facility, except that eligible
33 customer-generators shall not be assessed standby charges on the
34 electrical generating capacity or the kilowatthour production of an
35 eligible solar or wind electrical generating facility. The charges for
36 all retail rate components for eligible customer-generators shall be
37 based exclusively on the customer-generator's net kilowatthour
38 consumption over a 12-month period, without regard to the
39 customer-generator's choice of electric service provider. Any new
40 or additional demand charge, standby charge, customer charge,



1 minimum monthly charge, interconnection charge, or any other
2 charge that would increase an eligible customer-generator's costs
3 beyond those of other customers who are not customer-generators
4 in the rate class to which the eligible customer-generator would
5 otherwise be assigned if the customer did not own, lease, rent, or
6 otherwise operate an eligible solar or wind electrical generating
7 facility are contrary to the intent of this section, and shall not form
8 a part of net energy metering contracts or tariffs.

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

16 (1) The eligible residential or small commercial
17 customer-generator shall, at the end of each 12-month period
18 following the date of final interconnection of the eligible
19 customer-generator's system with an electric service provider, and
20 at each anniversary date thereafter, be billed for electricity used
21 during that period. The electric service provider shall determine if
22 the eligible residential or small commercial customer-generator
23 was a net consumer or a net producer of electricity during that
24 period.

25 (2) At the end of each 12-month period, where the electricity
26 supplied during the period by the electric service provider exceeds
27 the electricity generated by the eligible residential or small
28 commercial customer-generator during that same period, the
29 eligible residential or small commercial customer-generator is a
30 net electricity consumer and the electric service provider shall be
31 owed compensation for the eligible customer-generator's net
32 kilowatthour consumption over that same period. The
33 compensation owed for the eligible residential or small
34 commercial customer-generator's consumption shall be
35 calculated as follows:

36 (A) For all eligible customer-generators taking service under
37 tariffs employing "baseline" and "over baseline" rates, any net
38 monthly consumption of electricity shall be calculated according
39 to the terms of the contract or tariff to which the same customer
40 would be assigned to or be eligible for if the customer was not an



1 eligible customer-generator. If those same customer-generators
2 are net generators over a billing period, the net kilowatthours
3 generated shall be valued at the same price per kilowatthour as the
4 electric service provider would charge for the baseline quantity of
5 electricity during that billing period, and if the number of
6 kilowatthours generated exceeds the baseline quantity, the excess
7 shall be valued at the same price per kilowatthour as the electric
8 service provider would charge for electricity over the baseline
9 quantity during that billing period.

10 (B) For all eligible customer-generators taking service under
11 tariffs employing “time of use” rates, any net monthly
12 consumption of electricity shall be calculated according to the
13 terms of the contract or tariff to which the same customer would
14 be assigned to or be eligible for if the customer was not an eligible
15 customer-generator. When those same customer-generators are
16 net generators during any discrete time of use period, the net
17 kilowatthours produced shall be valued at the same price per
18 kilowatthour as the electric service provider would charge for
19 retail kilowatthour sales during that same time of use period. If the
20 eligible customer-generator’s time of use electrical meter is unable
21 to measure the flow of electricity in two directions, paragraph (3)
22 of subdivision (b) shall apply.

23 (C) For all residential and small commercial
24 customer-generators and for each billing period, the net balance of
25 moneys owed to the electric service provider for net consumption
26 of electricity or credits owed to the customer-generator for net
27 generation of electricity shall be carried forward as a monetary
28 value until the end of each 12-month period. For all commercial,
29 industrial, and agricultural customer-generators the net balance of
30 moneys owed shall be paid in accordance with the electric service
31 provider’s normal billing cycle, except that if the commercial,
32 industrial, or agricultural customer-generator is a net electricity
33 producer over a normal billing cycle, any excess kilowatthours
34 generated during the billing cycle shall be carried over to the
35 following billing period as a monetary value, calculated according
36 to the procedures set forth in this section, and appear as a credit on
37 the customer-generator’s account, until the end of the annual
38 period when paragraph (3) shall apply.

39 (3) At the end of each 12-month period, where the electricity
40 generated by the eligible customer-generator during the 12-month



1 period exceeds the electricity supplied by the electric service
2 provider during that same period, the eligible customer-generator
3 is a net electricity producer and the electric service provider shall
4 retain any excess kilowatthours generated during the prior
5 12-month period. The eligible customer-generator shall not be
6 owed any compensation for those excess kilowatthours unless the
7 electric service provider enters into a purchase agreement with the
8 eligible customer-generator for those excess kilowatthours.

9 (4) The electric service provider shall provide every eligible
10 residential or small commercial customer-generator with net
11 electricity consumption information with each regular bill. That
12 information shall include the current monetary balance owed the
13 electric service provider for net electricity consumed since the last
14 12-month period ended. Notwithstanding this subdivision, an
15 electric service provider shall permit that customer to pay monthly
16 for net energy consumed.

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

25 (6) If an electric service provider providing net metering to a
26 residential or small commercial customer-generator ceases
27 providing that electrical service to that customer during any
28 12-month period, and the customer-generator enters into a new net
29 metering contract or tariff with a new electric service provider, the
30 12-month period, with respect to that new electric service
31 provider, shall commence on the date on which the new electric
32 service provider first supplies electric service to the
33 customer-generator.

34 (i) Notwithstanding any other provisions of this section, the
35 following provisions shall apply to an eligible customer-generator
36 with a capacity of more than 10 kilowatts, but not exceeding one
37 megawatt, that receives electrical service from a local publicly
38 owned electric utility, as defined in Section 9604, that has elected
39 to utilize a co-energy metering program unless the electric service
40 provider chooses to provide service for eligible



1 customer-generators with a capacity of more than 10 kilowatts in
2 accordance with subdivisions (g) and (h):

3 (1) The eligible customer-generator shall be required to utilize
4 a meter, or multiple meters, capable of separately measuring
5 electricity flow in both directions. All meters shall provide
6 “time-of-use” measurements of electricity flow, and the customer
7 shall take service on a time-of-use rate schedule. If the existing
8 meter of the eligible customer-generator is not a time-of-use meter
9 or is not capable of measuring total flow of energy in both
10 directions, the eligible customer-generator shall be responsible for
11 all expenses involved in purchasing and installing a meter that is
12 both time-of-use and able to measure total electricity flow in both
13 directions. This subdivision shall not restrict the ability of an
14 eligible customer-generator to utilize any economic incentives
15 provided by a government agency or the electric service provider
16 to reduce its costs for purchasing and installing a time-of-use
17 meter.

18 (2) The consumption of electricity from the electric service
19 provider shall result in a cost to the eligible customer-generator to
20 be priced in accordance with the standard rate charged to the
21 eligible customer-generator in accordance with the rate structure
22 to which the customer would be assigned if the customer did not
23 use an eligible solar or wind electrical generating facility. The
24 generation of electricity provided to the electric service provider
25 shall result in a credit to the eligible customer-generator and shall
26 be priced in accordance with the generation component,
27 established under the applicable structure to which the customer
28 would be assigned if the customer did not use an eligible solar or
29 wind electrical generating facility.

30 (3) All costs and credits shall be shown on the eligible
31 customer-generator’s bill for each billing period. In any months in
32 which the eligible customer-generator has been a net consumer of
33 electricity calculated on the basis of value determined pursuant to
34 paragraph (2), the customer-generator shall owe to the electric
35 service provider the balance of electricity costs and credits during
36 that billing period. In any billing period in which the eligible
37 customer-generator has been a net producer of electricity
38 calculated on the basis of value determined pursuant to paragraph
39 (2), the electric service provider shall owe to the eligible
40 customer-generator the balance of electricity costs and credits



1 during that billing period. Any net credit to the eligible
2 customer-generator of electricity costs may be carried forward to
3 subsequent billing periods, provided that an electric service
4 provider may choose to carry the credit over as a kilowatt hour
5 credit consistent with the provisions of any applicable tariff,
6 including any differences attributable to the time of generation of
7 the electricity. At the end of each 12-month period, the electric
8 service provider may reduce any net credit due to the eligible
9 customer-generator to zero.

10 (j) A solar or wind turbine electrical generating system, or a
11 hybrid system of both, used by an eligible customer-generator
12 shall meet all applicable safety and performance standards
13 established by the National Electrical Code, the Institute of
14 Electrical and Electronics Engineers, and accredited testing
15 laboratories such as Underwriters Laboratories and, where
16 applicable, rules of the ~~Public Utilities Commission~~ *commission*
17 regarding safety and reliability. A customer-generator whose solar
18 or wind turbine electrical generating system, or a hybrid system of
19 both, meets those standards and rules shall not be required to install
20 additional controls, perform or pay for additional tests, or purchase
21 additional liability insurance.

22 (k) If the commission determines that there are cost or revenue
23 obligations for an electric corporation, as defined in Section 218,
24 that may not be recovered from customer-generators acting
25 pursuant to this section, those obligations shall remain within the
26 customer class from which any shortfall occurred and may not be
27 shifted to any other customer class. Net-metering and co-metering
28 customers shall not be exempt from the public benefits charge. In
29 its report to the Legislature, the commission shall examine
30 different methods to ensure that the public benefits charge remains
31 a nonbypassable charge.

32 (l) A net metering customer shall reimburse the Department of
33 Water Resources for all charges that would otherwise be imposed
34 on the customer by the commission to recover bond-related costs
35 pursuant to an agreement between the commission and the
36 Department of Water Resources pursuant to Section 80110 of the
37 Water Code, as well as the costs of the department equal to the
38 share of the department's estimated net unavoidable power
39 purchase contract costs attributable to the customer. The
40 commission shall incorporate the determination into an existing



1 proceeding before the commission, and shall ensure that the
2 charges are nonbypassable. Until the commission has made a
3 determination regarding the nonbypassable charges, net metering
4 shall continue under the same rules, procedures, terms, and
5 conditions as were applicable on December 31, 2002. *A net*
6 *metering customer who had a net metering system installed before*
7 *January 1, 2003, or who signed a contract for the installation of*
8 *a net metering system before January 1, 2003, is not subject to any*
9 *charge established pursuant to this subdivision.*

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

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

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

