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AMENDED IN ASSEMBLY JANUARY 16, 2002
AMENDED IN ASSEMBLY JANUARY 7, 2002

CALIFORNIA LEGISLATURE—2001–02 REGULAR SESSION

ASSEMBLY BILL

No. 58

**Introduced by Assembly Members Keeley and Pescetti
(Coauthors: Assembly Members Kehoe and Richman)**

December 4, 2000

An act to amend Sections 2827 and 2827.7 of, *and to repeal Section 2827 of*, the Public Utilities Code, relating to public utilities.

LEGISLATIVE COUNSEL'S DIGEST

AB 58, as amended, Keeley. Net energy metering.

(1) 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, commencing on January 1, 2003, requires every electric service provider, upon request, to make available to eligible customer-generators contracts for net energy metering subject to specified limitations on the number of contracts. *Existing law requires, commencing in 1999, every electric service provider, to make available to the ratemaking authority information on the total rated generating capacity used by eligible customer-generators that are customers of that provider in the provider's service area.*

This bill would *require every electric service provider, commencing January 1, 2003, to make available to the ratemaking authority information on the total rated generating capacity used by eligible*

customer-generators that are customers of that provider in the provider's service area. The bill would require every electric service provider to ensure that requests for establishment of net energy metering service are processed in a time period not exceeding that for similarly situated customers requesting new electric service, but not to exceed ~~one month~~ 30 working days from the date the electric service provider receives a completed application form, including a signed interconnection agreement from an eligible customer-generator and an electric inspection clearance. The bill would require an electric service provider to ensure that requests for an interconnection agreement be processed in a time period not to exceed 30 working days from the date the electric service provided receives the completed application. The bill would require an electric service provider that is unable to process the ~~request~~ requests within ~~this timeframe~~ these timeframes, to notify the customer-generator and the ~~Public Utilities Commission~~ ratemaking authority. The bill would also require every electric service provider to make forms and contracts for net energy metering available for download from the Internet. The bill would specify special net-metering provisions for a customer-generator with a capacity of more than 10 kilowatts, but not exceeding one megawatt. The bill would require the Public Utilities Commission to report to the Governor and the Legislature by January 1, 2007, on the costs and benefits of net metering.

(2) Existing law provides that generation eligible for net energy metering installed on or before December 31, 2002, is entitled to the net energy metering terms in effect on the date of installation for the life of the installation.

This bill would make this provision applicable regardless of any change in customer or ownership of the energy system.

Vote: majority. Appropriation: no. Fiscal committee: no. 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, as
- 2 amended by Section 11 of Chapter 8 of the Statutes of the 2001–02
- 3 First Extraordinary Session, is amended to read:
- 4 2827. (a) The Legislature finds and declares that a program
- 5 to provide net energy metering for eligible customer-generators is
- 6 one way to encourage substantial private investment in renewable



1 energy resources, stimulate in-state economic growth, reduce
2 demand for electricity during peak consumption periods, help
3 stabilize California’s energy supply infrastructure, enhance the
4 continued diversification of California’s energy resource mix, and
5 reduce interconnection and administrative costs for electricity
6 suppliers.

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

8 (1) “Electric service provider” means an electrical
9 corporation, as defined in Section 218, a local publicly owned
10 electric utility, as defined in Section 9604, or an electrical
11 cooperative, as defined in Section 2776, or any other entity that
12 offers electrical service.

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

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



1 metering calculation shall yield a result identical to that of a single
2 meter. An eligible customer-generator who already owns an
3 existing solar or wind turbine electrical generating facility, or a
4 hybrid system of both, is eligible to receive net energy metering
5 service in accordance with this section.

6 (4) “*Ratemaking authority*” means, for an electrical
7 corporation as defined in Section 218, or an electrical cooperative
8 as defined in Section 2776, the commission, and for a local
9 publicly owned electric utility as defined in Section 9604, the local
10 elected body responsible for regulating the rates of the local
11 publicly owned utility.

12 (c) (1) Every electric service provider shall develop a standard
13 contract or tariff providing for net energy metering, and shall make
14 this contract available to eligible customer-generators, upon
15 request, on a first-come-first-served basis until the time that the
16 total rated generating capacity used by eligible
17 customer-generators exceeds 1 percent of the electric service
18 provider’s aggregate customer peak demand.

19 (2) On an annual basis, beginning in 2003, every electric service
20 provider shall make available to the ratemaking authority
21 information on the total rated generating capacity used by eligible
22 customer-generators that are customers of that provider in the
23 provider’s service area. For those electric service providers who
24 are operating pursuant to Section 394, they shall make available
25 to the ratemaking authority the information required by this
26 paragraph for each eligible customer-generator that is their
27 customer for each service area of an electric corporation, local
28 publicly owned electric utility, or electrical cooperative, in which
29 the customer has net energy metering. The ratemaking authority
30 shall develop a process for making the information required by this
31 paragraph available to energy service providers, and for using
32 that information to determine when, pursuant to paragraph (3), a
33 service provider is not obligated to provide net energy metering to
34 additional customer-generators in its service area.

35 (3) Notwithstanding paragraph (1), an electric service provider
36 is not obligated to provide net energy metering to additional
37 customer-generators in its service area when the combined total
38 peak demand of all customer-generators served by all the electric
39 service providers in that service area furnishing net energy
40 metering to eligible customer-generators exceeds 1 percent of the



1 aggregate customer peak demand of those electric service
2 providers.

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

6 (e) (1) Every electric service provider shall ensure that
7 requests for establishment of net energy metering are processed in
8 a time period not exceeding that for similarly situated customers
9 requesting new electric service, but not to exceed ~~one month~~ 30
10 working days from the date the electric service provider receives
11 a completed application form ~~from an eligible customer-generator~~
12 ~~for net metering service, including a signed interconnection~~
13 ~~agreement from an eligible customer-generator and the electric~~
14 ~~inspection clearance from the governmental authority having~~
15 ~~jurisdiction. If an electric service provider is unable to process the~~
16 ~~request within the allowable timeframe, the electric service~~
17 ~~provider shall notify both the customer-generator and the~~
18 ~~commission ratemaking authority of the reason for its inability to~~
19 ~~process the request and the date the request will be completed.~~
20 ~~Every electric service provider shall make all necessary forms and~~
21 ~~contracts for net energy metering available for download from the~~
22 ~~Internet.~~

23 ~~(2) inability to process the request and the expected completion~~
24 ~~date.~~

25 (2) Electric service providers shall ensure that requests for an
26 interconnection agreement from an eligible customer-generator
27 are processed in a time period not to exceed 30 working days from
28 the date the electric service provider receives a completed
29 application form from the eligible customer-generator for an
30 interconnection agreement. If an electric service provider is
31 unable to process the request within the allowable timeframe, the
32 electric service provider shall notify the customer-generator and
33 the ratemaking authority of the reason for its inability to process
34 the request and the expected completion date.

35 (f) (1) If a customer participates in direct transactions pursuant
36 to paragraph (1) of subdivision (b) of Section 365 with an electric
37 supplier that does not provide distribution service for the direct
38 transactions, the service provider that provides distribution service
39 for an eligible customer-generator is not obligated to provide net
40 energy metering to the customer.



1 ~~(3)~~

2 (2) If a customer participates in direct transactions pursuant to
3 paragraph (1) of subdivision (b) of Section 365 with an electric
4 supplier, and the customer is an eligible customer-generator, the
5 service provider that provides distribution service for the direct
6 transactions may recover from the customer’s electric service
7 provider the incremental costs of metering and billing service
8 related to net energy metering in an amount set by the ~~commission.~~

9 ~~(d) ratemaking authority.~~

10 (g) Each net energy metering contract or tariff shall be
11 identical, with respect to rate structure, all retail rate components,
12 and any monthly charges, to the contract or tariff to which the same
13 customer would be assigned if ~~such customer was not an eligible~~
14 ~~customer-generator~~ *the customer did not use an eligible solar or*
15 *wind electrical generating facility*, except that eligible
16 customer-generators shall not be assessed standby charges on the
17 electrical generating capacity or the kilowatthour production of an
18 eligible solar or wind electrical generating facility. The charges for
19 all retail rate components for eligible customer-generators shall be
20 based exclusively on the customer-generator’s net kilowatthour
21 consumption over a 12-month period, without regard to the
22 customer-generator’s choice of electric service provider. Any new
23 or additional demand charge, standby charge, customer charge,
24 minimum monthly charge, interconnection charge, or *any other*
25 *charge that would increase an eligible customer-generator’s costs*
26 *beyond those of other customers who are not customer-generators*
27 *in the rate class to which the eligible customer-generator would*
28 *otherwise be assigned if the customer did not own, lease, rent, or*
29 *otherwise operate an eligible solar or wind electrical generating*
30 *facility* are contrary to the intent of this ~~legislation~~ *section*, and
31 shall not form a part of net energy metering contracts or tariffs.

32 ~~(e)~~

33 (h) For eligible residential and small commercial
34 customer-generators, the net energy metering calculation shall be
35 made by measuring the difference between the electricity supplied
36 to the eligible customer-generator and the electricity generated by
37 the eligible customer-generator and fed back to the electric grid
38 over a 12-month period. The following rules shall apply to the
39 annualized net metering calculation:



1 (1) The eligible residential or small commercial
2 customer-generator shall, at the end of each 12-month period
3 following the date of final interconnection of the eligible
4 customer-generator’s system with an electric service provider, and
5 at each anniversary date thereafter, be billed for electricity used
6 during that period. The electric service provider shall determine if
7 the eligible residential or small commercial customer-generator
8 was a net consumer or a net producer of electricity during that
9 period.

10 (2) At the end of each 12-month period, where the electricity
11 supplied during the period by the electric service provider exceeds
12 the electricity generated by the eligible residential or small
13 commercial customer-generator during that same period, the
14 eligible residential or small commercial customer-generator is a
15 net electricity consumer and the electric service provider shall be
16 owed compensation for the eligible customer-generator’s net
17 kilowatthour consumption over that same period. The
18 compensation owed for the eligible residential or small
19 commercial customer-generator’s consumption shall be
20 calculated as follows:

21 (A) For all eligible customer-generators taking service under
22 tariffs employing “baseline” and “over baseline” rates, any net
23 monthly consumption of electricity shall be calculated according
24 to the terms of the contract or tariff to which the same customer
25 would be assigned to or be eligible for if the customer was not an
26 eligible customer-generator. If those same customer-generators
27 are net generators over a billing period, the net kilowatthours
28 generated shall be valued at the same price per kilowatthour as the
29 electric service provider would charge for the baseline quantity of
30 electricity during that billing period, and if the number of
31 kilowatthours generated exceeds the baseline quantity, the excess
32 shall be valued at the same price per kilowatthour as the electric
33 service provider would charge for electricity over the baseline
34 quantity during that billing period.

35 (B) For all eligible customer-generators taking service under
36 tariffs employing “time of use” rates, any net monthly
37 consumption of electricity shall be calculated according to the
38 terms of the contract or tariff to which the same customer would
39 be assigned to or be eligible for if the customer was not an eligible
40 customer-generator. When those same customer-generators are



1 net generators during any discrete time of use period, the net
2 kilowatthours produced shall be valued at the same price per
3 kilowatthour as the electric service provider would charge for
4 retail kilowatthour sales during that same time of use period. If the
5 eligible customer-generator's time of use electrical meter is unable
6 to measure the flow of electricity in two directions, paragraph (3)
7 of subdivision (b) shall apply.

8 (C) For all residential and small commercial
9 customer-generators and for each monthly period, the net balance
10 of moneys owed to the electric service provider for net
11 consumption of electricity or credits owed to the
12 customer-generator for net generation of electricity shall be
13 carried forward *as a monetary value* until the end of each
14 12-month period. For all commercial, industrial, and agricultural
15 customer-generators the net balance of moneys owed shall be paid
16 in accordance with the electric service provider's normal billing
17 cycle, except that if the commercial, industrial, or agricultural
18 customer-generator is a net electricity producer over a normal
19 billing cycle, any excess kilowatthours generated during the
20 billing cycle shall be carried over to the following billing period;
21 ~~valued as a monetary value, calculated~~ according to the
22 procedures set forth in this section, and appear as a credit on the
23 customer-generator's account, until the end of the annual period
24 when paragraph (3) ~~of subdivision (e)~~ shall apply.

25 (3) At the end of each 12-month period, where the electricity
26 generated by the eligible customer-generator during the 12-month
27 period exceeds the electricity supplied by the electric service
28 provider during that same period, the eligible customer-generator
29 is a net electricity producer and the electric service provider shall
30 retain any excess kilowatthours generated during the prior
31 12-month period. The eligible customer-generator shall not be
32 owed any compensation for those excess kilowatthours unless the
33 electric service provider enters into a purchase agreement with the
34 eligible customer-generator for those excess kilowatthours.

35 (4) The electric service provider shall provide every eligible
36 residential or small commercial customer-generator with net
37 electricity consumption information with each regular bill. That
38 information shall include the current monetary balance owed the
39 electric service provider for net electricity consumed since the last
40 12-month period ended. Notwithstanding ~~subdivision (e)~~ *this*



1 *subdivision*, an electric service provider shall permit that customer
2 to pay monthly for net energy consumed.

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

11 (6) If an electric service provider providing net metering to a
12 residential or small commercial customer-generator ceases
13 providing that electrical service to that customer during any
14 12-month period, and the customer-generator enters into a new net
15 metering contract or tariff with a new electric service provider, the
16 12-month period, with respect to that new electric service
17 provider, shall commence on the date on which the new electric
18 service provider first supplies electric service to the
19 customer-generator.

20 ~~(f)~~

21 *(i) Notwithstanding any other provisions of this section, the*
22 *following provisions shall apply to a customer-generator with a*
23 *capacity of more than 10 kilowatts, but not exceeding one*
24 *megawatt:*

25 *(1) The customer-generator shall be required to utilize a meter,*
26 *or multiple meters, capable of separately measuring electricity*
27 *flow in both directions. All meters shall provide "time-of-use"*
28 *measurements of electricity flow.*

29 *(2) The consumption of electricity from the electric service*
30 *provider shall result in a cost to the customer-generator to be*
31 *priced in accordance with the standard rate charged to the*
32 *customer-generator in accordance with the electric service*
33 *provider's rate structure. The generation of electricity provided to*
34 *the electric service provider shall result in a credit to the*
35 *customer-generator and shall be priced in accordance with the*
36 *generation value established under the electric service provider's*
37 *rate structure.*

38 *(3) All costs and credits shall be shown on the*
39 *customer-generator's bill on a monthly basis. The costs to the*
40 *customer-generator based on the consumption of electricity from*



1 *the electric service provider; and the credits owed to the*
2 *customer-generator based on the generation and delivery of*
3 *electricity to the electric service provider; shall be carried forward*
4 *as a monetary value to subsequent months during a 12-month*
5 *period.*

6 (4) (A) *At the end of each 12-month period, in which the*
7 *customer-generator has been a net consumer of electricity*
8 *calculated on the basis of value determined pursuant to paragraph*
9 (2), *the customer-generator shall owe to the electric service*
10 *provider the balance of electricity costs and credits during the*
11 *prior 12-month period.*

12 (B) *At the end of each 12-month period, where the*
13 *customer-generator has been a net producer of electricity*
14 *calculated on the basis of value determined pursuant to paragraph*
15 (2), *the electric service provider shall owe to the*
16 *customer-generator the balance of electricity costs and credits*
17 *during the prior 12-month period.*

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

30 ~~(g) This section shall remain in effect only until January 1,~~
31 ~~2003, and as of that date is repealed, unless a later enacted statute,~~
32 ~~that is enacted before January 1, 2003, deletes or extends that date.~~

33 (k) *By January 1, 2007, the commission shall submit a report*
34 *to the Governor and the Legislature that assesses the costs and*
35 *benefits of net metering to customer-generators, ratepayers, and*
36 *utilities. The report shall be prepared by an independent party*
37 *under contract with the commission.*

38 ~~SEC. 2.—Section 2827 of the Public Utilities Code, as added by~~
39 ~~Section 12 of Chapter 8 of the Statutes of the 2001–02 First~~
40 ~~Extraordinary Session, is amended to read:~~



1 ~~2827. (a) The Legislature finds and declares that a program~~
2 ~~to provide net energy metering for eligible customer generators is~~
3 ~~one way to encourage private investment in renewable energy~~
4 ~~resources, stimulate in-state economic growth, enhance the~~
5 ~~continued diversification of California's energy resource mix, and~~
6 ~~reduce interconnection and administrative costs for electricity~~
7 ~~suppliers.~~

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

9 ~~(1) "Electric service provider" means an electric corporation,~~
10 ~~as defined in Section 218, a local publicly owned electric utility,~~
11 ~~as defined in Section 9604, or an electrical cooperative, as defined~~
12 ~~in Section 2776. "Electric service provider" also means an entity~~
13 ~~that offers electrical service to residential and small commercial~~
14 ~~customers, as defined in Section 394, if that entity offers net~~
15 ~~energy metering. Any entity that offers net energy metering to~~
16 ~~residential and small commercial customers shall comply with this~~
17 ~~section.~~

18 ~~(2) "Eligible customer-generator" means a residential~~
19 ~~customer, or a small commercial customer as defined in~~
20 ~~subdivision (h) of Section 331, of an electric service provider, who~~
21 ~~uses a solar or a wind turbine electrical generating facility, or a~~
22 ~~hybrid system of both, with a capacity of not more than 10~~
23 ~~kilowatts that is located on the customer's premises, is~~
24 ~~interconnected and operates in parallel with the electric grid, and~~
25 ~~is intended primarily to offset part or all of the customer's own~~
26 ~~electrical requirements.~~

27 ~~(3) "Net energy metering" means measuring the difference~~
28 ~~between the electricity supplied through the electric grid and the~~
29 ~~electricity generated by an eligible customer-generator and fed~~
30 ~~back to the electric grid over a 12-month period as described in~~
31 ~~subdivision (e). Net energy metering shall be accomplished using~~
32 ~~a single meter capable of registering the flow of electricity in two~~
33 ~~directions. An additional meter or meters to monitor the flow of~~
34 ~~electricity in each direction may be installed with the consent of~~
35 ~~the customer-generator, at the expense of the electric service~~
36 ~~provider, and the additional metering shall be used only to provide~~
37 ~~the information necessary to accurately bill or credit the~~
38 ~~customer-generator pursuant to subdivision (e), or to collect solar~~
39 ~~or wind electric generating system performance information for~~
40 ~~research purposes. If the existing electrical meter of an eligible~~



1 ~~customer-generator is not capable of measuring the flow of~~
2 ~~electricity in two directions, the customer generator shall be~~
3 ~~responsible for all expenses involved in purchasing and installing~~
4 ~~a meter that is able to measure electricity flow in two directions.~~
5 ~~If an additional meter or meters are installed, the net energy~~
6 ~~metering calculation shall yield a result identical to that of a single~~
7 ~~meter. An eligible customer generator who already owns an~~
8 ~~existing solar or wind turbine electrical generating facility, or a~~
9 ~~hybrid system of both, is eligible to receive net energy metering~~
10 ~~service in accordance with this section.~~

11 ~~(4) “Ratemaking authority” means, for an electrical~~
12 ~~corporation as defined in Section 218, or an electrical cooperative~~
13 ~~as defined in Section 2776, the commission, and for a local~~
14 ~~publicly owned electric utility as defined in Section 9604, the local~~
15 ~~elected body responsible for regulating the rates of the utility.~~

16 ~~(e) (1) Every electric service provider shall develop a standard~~
17 ~~contract or tariff providing for net energy metering, and shall make~~
18 ~~this contract available to eligible customer-generators, upon~~
19 ~~request, on a first come first served basis until the time that the~~
20 ~~total rated generating capacity used by eligible~~
21 ~~customer-generators equals one-tenth of 1 percent of the electric~~
22 ~~service provider’s aggregate customer peak demand. Every~~
23 ~~electric service provider shall ensure that requests for~~
24 ~~establishment of net energy metering are processed in a time~~
25 ~~period not exceeding that for similarly situated customers~~
26 ~~requesting new electric service, but not to exceed one month from~~
27 ~~the date the electric service provider receives a completed~~
28 ~~application form from an eligible customer generator. If an~~
29 ~~electric service provider is unable to process the request within the~~
30 ~~allowable timeframe, the electric service provider shall notify both~~
31 ~~the customer-generator and the commission of the reason for its~~
32 ~~inability to process the request and the date the request will be~~
33 ~~completed. Every electric service provider shall make all~~
34 ~~necessary forms and contracts for net energy metering available~~
35 ~~for download from the Internet.~~

36 ~~(2) On an annual basis, beginning in 1999, every electric~~
37 ~~service provider shall make available to the ratemaking authority~~
38 ~~information on the total rated generating capacity used by eligible~~
39 ~~customer-generators that are customers of that provider in the~~
40 ~~provider’s service area. For those electric service providers who~~



1 are operating pursuant to Section 394, they shall make available
2 to the ratemaking authority the information required by this
3 paragraph for each eligible customer-generator that is their
4 customer for each service area of an electric corporation, local
5 publicly owned electric utility, or electrical cooperative, in which
6 the customer has net energy metering. The ratemaking authority
7 shall develop a process for making the information required by this
8 paragraph available to energy service providers, and for using that
9 information to determine when, pursuant to paragraph (3), a
10 service provider is not obligated to provide net energy metering to
11 additional customer-generators in its service area.

12 (3) Notwithstanding paragraph (1), an electric service provider
13 is not obligated to provide net energy metering to additional
14 customer-generators in its service area when the combined total
15 peak demand of all customer-generators served by all the electric
16 service providers in that service area furnishing net energy
17 metering to eligible customer-generators equals one-tenth of 1
18 percent of the aggregate customer peak demand of those electric
19 service providers.

20 (4) If a customer participates in direct transactions pursuant to
21 paragraph (1) of subdivision (b) of Section 365 with an electric
22 supplier that does not offer net energy metering and is therefore not
23 an electric service provider, the customer is not an eligible
24 customer-generator and the electric corporation, as defined in
25 Section 218, that provides distribution service for the direct
26 transactions, is not obligated to provide net energy metering to the
27 customer.

28 (5) If a customer participates in direct transactions pursuant to
29 paragraph (1) of subdivision (b) of Section 365 with an electric
30 supplier that offers net energy metering and is therefore an electric
31 service provider, and the customer is an eligible
32 customer-generator, the electric corporation, as defined in Section
33 218, that provides distribution service for the direct transactions
34 may recover from the customer's electric service provider the
35 incremental costs of metering and billing service related to net
36 energy metering in an amount set by the commission.

37 (d) Each net energy metering contract or tariff shall be
38 identical, with respect to rate structure, all retail rate components,
39 and any monthly charges, to the contract or tariff to which the same
40 customer would be assigned if such customer was not an eligible



1 customer-generator. The charges for all retail rate components for
2 eligible customer generators shall be based exclusively on the
3 customer-generator's net kilowatthour consumption over a
4 12-month period, without regard to the customer-generator's
5 choice of electric service provider that offers net energy metering
6 and is subject to this section pursuant to paragraph (1) of
7 subdivision (b), in accordance with subdivision (c). Any new or
8 additional demand charge, standby charge, customer charge,
9 minimum monthly charge, interconnection charge, or other charge
10 that would increase an eligible customer-generator's costs beyond
11 those of other customers in the rate class to which the eligible
12 customer-generator would otherwise be assigned are contrary to
13 the intent of this legislation, and shall not form a part of net energy
14 metering contracts or tariffs.

15 (c) The net energy metering calculation shall be made by
16 measuring the difference between the electricity supplied to the
17 eligible customer-generator and the electricity generated by the
18 eligible customer-generator and fed back to the electric grid over
19 a 12-month period. The following rules shall apply to the
20 annualized net metering calculation:

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

28 (2) At the end of each 12-month period, where the electricity
29 supplied during the period by the electric service provider exceeds
30 the electricity generated by the eligible customer-generator during
31 that same period, the eligible customer-generator is a net
32 electricity consumer and the electric service provider shall be
33 owed compensation for the eligible customer-generator's net
34 kilowatthour consumption over that same period. The
35 compensation owed for the eligible customer-generator's net
36 12-month kilowatthour consumption shall be calculated as
37 follows:

38 (A) For eligible customer-generators taking service under
39 tariffs employing "baseline" and "over baseline" rates, any net
40 monthly consumption of electricity shall be calculated according



1 to the terms of the contract or tariff to which the same customer
2 would be assigned to or be eligible for if the customer was not an
3 eligible customer-generator. If those same customer-generators
4 are net generators over a billing period, the net kilowatthours
5 generated shall be valued at the same price per kilowatthour as the
6 electric service provider would charge for the baseline quantity of
7 electricity during that billing period, and if the number of
8 kilowatthours generated exceeds the baseline quantity, the excess
9 shall be valued at the same price per kilowatthour as the electric
10 service provider would charge for electricity over the baseline
11 quantity during that billing period.

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

25 (C) For all customer-generators and for each monthly period,
26 the net balance of moneys owed to the electric service provider for
27 net consumption of electricity or credits owed to the
28 customer-generator for net generation of electricity shall be
29 carried forward until the end of each 12-month period.

30 (3) At the end of each 12-month period, where the electricity
31 generated by the eligible customer-generator during the 12-month
32 period exceeds the electricity supplied by the electric service
33 provider during that same period, the eligible customer-generator
34 is a net electricity producer and the electric service provider shall
35 retain any excess kilowatthours generated during the prior
36 12-month period. The eligible customer-generator shall not be
37 owed any compensation for those excess kilowatthours unless the
38 electric service provider enters into a purchase agreement with the
39 eligible customer-generator for those excess kilowatthours.



1 ~~(4) The electric service provider shall provide every eligible~~
2 ~~customer-generator with net electricity consumption information~~
3 ~~with each regular bill. That information shall include the current~~
4 ~~monetary balance owed the electric service provider for net~~
5 ~~electricity consumed since the last 12-month period ended.~~
6 ~~Notwithstanding subdivision (e), an electric service provider shall~~
7 ~~permit that customer to pay monthly for net energy consumed.~~

8 ~~(5) If an eligible customer-generator terminates the customer~~
9 ~~relationship with the electric service provider, the electric service~~
10 ~~provider shall reconcile the eligible customer-generator's~~
11 ~~consumption and production of electricity during any part of a~~
12 ~~12-month period following the last reconciliation, according to the~~
13 ~~requirements set forth in this subdivision, except that those~~
14 ~~requirements shall apply only to the months since the most recent~~
15 ~~12-month bill.~~

16 ~~(6) If an electric service provider providing net metering to a~~
17 ~~customer-generator ceases providing that electrical service to that~~
18 ~~customer during any 12-month period, and the customer-generator~~
19 ~~enters into a new net metering contract or tariff with a new electric~~
20 ~~service provider, the 12-month period, with respect to that new~~
21 ~~electric service provider, shall commence on the date on which the~~
22 ~~new electric service provider first supplies electric service to the~~
23 ~~customer-generator.~~

24 ~~(f) A solar or wind turbine electrical generating system, or a~~
25 ~~hybrid system of both, used by an eligible customer-generator~~
26 ~~shall meet all applicable safety and performance standards~~
27 ~~established by the National Electrical Code, the Institute of~~
28 ~~Electrical and Electronics Engineers, and accredited testing~~
29 ~~laboratories such as Underwriters Laboratories and, where~~
30 ~~applicable, rules of the Public Utilities Commission regarding~~
31 ~~safety and reliability. A customer-generator whose solar or wind~~
32 ~~turbine electrical generating system, or a hybrid system of both,~~
33 ~~meets those standards and rules shall not be required to install~~
34 ~~additional controls, perform or pay for additional tests, or purchase~~
35 ~~additional liability insurance.~~

36 ~~(g) This section shall become operative on January 1, 2003.~~

37 *SEC. 2. Section 2827 of the Public Utilities Code, as added by*
38 *Section 12 of Chapter 8 of the Statutes of the 2001-02 First*
39 *Extraordinary Session, is repealed.*



1 ~~2827. (a) The Legislature finds and declares that a program~~
2 ~~to provide net energy metering for eligible customer generators is~~
3 ~~one way to encourage private investment in renewable energy~~
4 ~~resources, stimulate in-state economic growth, enhance the~~
5 ~~continued diversification of California's energy resource mix, and~~
6 ~~reduce interconnection and administrative costs for electricity~~
7 ~~suppliers.~~

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

9 ~~(1) "Electric service provider" means an electric corporation,~~
10 ~~as defined in Section 218, a local publicly owned electric utility,~~
11 ~~as defined in Section 9604, or an electrical cooperative, as defined~~
12 ~~in Section 2776. "Electric service provider" also means an entity~~
13 ~~that offers electrical service to residential and small commercial~~
14 ~~customers, as defined in Section 394, if that entity offers net~~
15 ~~energy metering. Any entity that offers net energy metering to~~
16 ~~residential and small commercial customers shall comply with this~~
17 ~~section.~~

18 ~~(2) "Eligible customer generator" means a residential~~
19 ~~customer, or a small commercial customer as defined in~~
20 ~~subdivision (h) of Section 331, of an electric service provider, who~~
21 ~~uses a solar or a wind turbine electrical generating facility, or a~~
22 ~~hybrid system of both, with a capacity of not more than 10~~
23 ~~kilowatts that is located on the customer's premises, is~~
24 ~~interconnected and operates in parallel with the electric grid, and~~
25 ~~is intended primarily to offset part or all of the customer's own~~
26 ~~electrical requirements.~~

27 ~~(3) "Net energy metering" means measuring the difference~~
28 ~~between the electricity supplied through the electric grid and the~~
29 ~~electricity generated by an eligible customer generator and fed~~
30 ~~back to the electric grid over a 12-month period as described in~~
31 ~~subdivision (e). Net energy metering shall be accomplished using~~
32 ~~a single meter capable of registering the flow of electricity in two~~
33 ~~directions. An additional meter or meters to monitor the flow of~~
34 ~~electricity in each direction may be installed with the consent of~~
35 ~~the customer generator, at the expense of the electric service~~
36 ~~provider, and the additional metering shall be used only to provide~~
37 ~~the information necessary to accurately bill or credit the~~
38 ~~customer generator pursuant to subdivision (e), or to collect solar~~
39 ~~or wind electric generating system performance information for~~
40 ~~research purposes. If the existing electrical meter of an eligible~~



1 customer-generator is not capable of measuring the flow of
2 electricity in two directions, the customer generator shall be
3 responsible for all expenses involved in purchasing and installing
4 a meter that is able to measure electricity flow in two directions.
5 If an additional meter or meters are installed, the net energy
6 metering calculation shall yield a result identical to that of a single
7 meter. An eligible customer generator who already owns an
8 existing solar or wind turbine electrical generating facility, or a
9 hybrid system of both, is eligible to receive net energy metering
10 service in accordance with this section.

11 (4) “Ratemaking authority” means, for an electrical
12 corporation as defined in Section 218, or an electrical cooperative
13 as defined in Section 2776, the commission, and for a local
14 publicly owned electric utility as defined in Section 9604, the local
15 elected body responsible for regulating the rates of the utility.

16 (e) (1) Every electric service provider shall develop a standard
17 contract or tariff providing for net energy metering, and shall make
18 this contract available to eligible customer-generators, upon
19 request, on a first come first served basis until the time that the
20 total rated generating capacity used by eligible
21 customer-generators equals one-tenth of 1 percent of the electric
22 service provider’s aggregate customer peak demand.

23 (2) On an annual basis, beginning in 1999, every electric
24 service provider shall make available to the ratemaking authority
25 information on the total rated generating capacity used by eligible
26 customer-generators that are customers of that provider in the
27 provider’s service area. For those electric service providers who
28 are operating pursuant to Section 394, they shall make available
29 to the ratemaking authority the information required by this
30 paragraph for each eligible customer-generator that is their
31 customer for each service area of an electric corporation, local
32 publicly owned electric utility, or electrical cooperative, in which
33 the customer has net energy metering. The ratemaking authority
34 shall develop a process for making the information required by this
35 paragraph available to energy service providers, and for using that
36 information to determine when, pursuant to paragraph (3), a
37 service provider is not obligated to provide net energy metering to
38 additional customer-generators in its service area.

39 (3) Notwithstanding paragraph (1), an electric service provider
40 is not obligated to provide net energy metering to additional



1 ~~customer-generators in its service area when the combined total~~
2 ~~peak demand of all customer-generators served by all the electric~~
3 ~~service providers in that service area furnishing net energy~~
4 ~~metering to eligible customer-generators equals one-tenth of 1~~
5 ~~percent of the aggregate customer peak demand of those electric~~
6 ~~service providers.~~

7 ~~(4) If a customer participates in direct transactions pursuant to~~
8 ~~paragraph (1) of subdivision (b) of Section 365 with an electric~~
9 ~~supplier that does not offer net energy metering and is therefore not~~
10 ~~an electric service provider, the customer is not an eligible~~
11 ~~customer-generator and the electric corporation, as defined in~~
12 ~~Section 218, that provides distribution service for the direct~~
13 ~~transactions, is not obligated to provide net energy metering to the~~
14 ~~customer.~~

15 ~~(5) If a customer participates in direct transactions pursuant to~~
16 ~~paragraph (1) of subdivision (b) of Section 365 with an electric~~
17 ~~supplier that offers net energy metering and is therefore an electric~~
18 ~~service provider, and the customer is an eligible~~
19 ~~customer-generator, the electric corporation, as defined in Section~~
20 ~~218, that provides distribution service for the direct transactions~~
21 ~~may recover from the customer's electric service provider the~~
22 ~~incremental costs of metering and billing service related to net~~
23 ~~energy metering in an amount set by the commission.~~

24 ~~(d) Each net energy metering contract or tariff shall be~~
25 ~~identical, with respect to rate structure, all retail rate components,~~
26 ~~and any monthly charges, to the contract or tariff to which the same~~
27 ~~customer would be assigned if such customer was not an eligible~~
28 ~~customer-generator. The charges for all retail rate components for~~
29 ~~eligible customer-generators shall be based exclusively on the~~
30 ~~customer-generator's net kilowatthour consumption over a~~
31 ~~12-month period, without regard to the customer-generator's~~
32 ~~choice of electric service provider that offers net energy metering~~
33 ~~and is subject to this section pursuant to paragraph (1) of~~
34 ~~subdivision (b), in accordance with subdivision (c). Any new or~~
35 ~~additional demand charge, standby charge, customer charge,~~
36 ~~minimum monthly charge, interconnection charge, or other charge~~
37 ~~that would increase an eligible customer-generator's costs beyond~~
38 ~~those of other customers in the rate class to which the eligible~~
39 ~~customer-generator would otherwise be assigned are contrary to~~



1 ~~the intent of this legislation, and shall not form a part of net energy~~
2 ~~metering contracts or tariffs.~~

3 ~~(c) The net energy metering calculation shall be made by~~
4 ~~measuring the difference between the electricity supplied to the~~
5 ~~eligible customer-generator and the electricity generated by the~~
6 ~~eligible customer-generator and fed back to the electric grid over~~
7 ~~a 12-month period. The following rules shall apply to the~~
8 ~~annualized net metering calculation:~~

9 ~~(1) The eligible customer-generator shall, at the end of each~~
10 ~~12-month period following the date of final interconnection of the~~
11 ~~eligible customer-generator's system with an electric service~~
12 ~~provider, and at each anniversary date thereafter, be billed for~~
13 ~~electricity used during that period. The electric service provider~~
14 ~~shall determine if the eligible customer-generator was a net~~
15 ~~consumer or a net producer of electricity during that period.~~

16 ~~(2) At the end of each 12-month period, where the electricity~~
17 ~~supplied during the period by the electric service provider exceeds~~
18 ~~the electricity generated by the eligible customer-generator during~~
19 ~~that same period, the eligible customer-generator is a net~~
20 ~~electricity consumer and the electric service provider shall be~~
21 ~~owed compensation for the eligible customer-generator's net~~
22 ~~kilowatthour consumption over that same period. The~~
23 ~~compensation owed for the eligible customer-generator's net~~
24 ~~12-month kilowatthour consumption shall be calculated as~~
25 ~~follows:~~

26 ~~(A) For eligible customer-generators taking service under~~
27 ~~tariffs employing "baseline" and "over baseline" rates, any net~~
28 ~~monthly consumption of electricity shall be calculated according~~
29 ~~to the terms of the contract or tariff to which the same customer~~
30 ~~would be assigned to or be eligible for if the customer was not an~~
31 ~~eligible customer-generator. If those same customer-generators~~
32 ~~are net generators over a billing period, the net kilowatthours~~
33 ~~generated shall be valued at the same price per kilowatthour as the~~
34 ~~electric service provider would charge for the baseline quantity of~~
35 ~~electricity during that billing period, and if the number of~~
36 ~~kilowatthours generated exceeds the baseline quantity, the excess~~
37 ~~shall be valued at the same price per kilowatthour as the electric~~
38 ~~service provider would charge for electricity over the baseline~~
39 ~~quantity during that billing period.~~



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

14 ~~(C) For all customer-generators and for each monthly period,~~
15 ~~the net balance of moneys owed to the electric service provider for~~
16 ~~net consumption of electricity or credits owed to the~~
17 ~~customer-generator for net generation of electricity shall be~~
18 ~~carried forward until the end of each 12-month period.~~

19 ~~(3) At the end of each 12-month period, where the electricity~~
20 ~~generated by the eligible customer-generator during the 12-month~~
21 ~~period exceeds the electricity supplied by the electric service~~
22 ~~provider during that same period, the eligible customer-generator~~
23 ~~is a net electricity producer and the electric service provider shall~~
24 ~~retain any excess kilowatthours generated during the prior~~
25 ~~12-month period. The eligible customer-generator shall not be~~
26 ~~owed any compensation for those excess kilowatthours unless the~~
27 ~~electric service provider enters into a purchase agreement with the~~
28 ~~eligible customer-generator for those excess kilowatthours.~~

29 ~~(4) The electric service provider shall provide every eligible~~
30 ~~customer-generator with net electricity consumption information~~
31 ~~with each regular bill. That information shall include the current~~
32 ~~monetary balance owed the electric service provider for net~~
33 ~~electricity consumed since the last 12-month period ended.~~
34 ~~Notwithstanding subdivision (c), an electric service provider shall~~
35 ~~permit that customer to pay monthly for net energy consumed.~~

36 ~~(5) If an eligible customer-generator terminates the customer~~
37 ~~relationship with the electric service provider, the electric service~~
38 ~~provider shall reconcile the eligible customer-generator’s~~
39 ~~consumption and production of electricity during any part of a~~
40 ~~12-month period following the last reconciliation, according to the~~



1 requirements set forth in this subdivision, except that those
2 requirements shall apply only to the months since the most recent
3 12-month bill.

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

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

24 (g) This section shall become operative on January 1, 2003.

25 SEC. 3. Section 2827.7 of the Public Utilities Code is
26 amended to read:

27 2827.7. Generation eligible for net energy metering that is
28 installed on or before December 31, 2002, shall be entitled,
29 regardless of any change in customer or ownership of the energy
30 system, for the life of the installation, to the net energy metering
31 terms in effect on the date of installation.

