STATE OF CALIFORNIA — Public Utilities Commission
Fresno

M e m o r a n d u m

Date: May 8, 2012

To: The Commission
(Meeting of May 10, 2012)

From: Lynn Sadler, Director
Office of Governmental Affairs (OGA) — Sacramento

Subject: **SB 594 (Wolk) – Energy: net energy metering.**
As amended: March 1, 2012

LEGISLATIVE SUBCOMMITTEE RECOMMENDATION: SUPPORT WITH TECHNICAL AMENDMENTS

SUMMARY OF BILL

SB 594 would allow Net Energy Metering (NEM) customer-generators with multiple meters to aggregate the electrical load of the meters located on the property where the generation facility is located and on all property adjacent or contiguous to the property on which the generation facility is located, if those properties are solely owned by the eligible customer-generator. This will allow a customer to install one renewable energy facility sized to serve their entire aggregated multi-meter on-site load (up to one megawatt) instead of installing separate generators at each meter. This bill would prohibit an eligible customer-generator that chooses to aggregate from receiving net surplus electricity compensation (NSC) and require the electric utility to retain surplus kilowatt-hours generated in a 12-month period.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION

This bill expands the NEM program in helpful ways that support the State's achievement of distributed generation (DG) related policy goals:

(1) NEM meter aggregation across multiple meters allows a customer to install one renewable energy facility sized to offset their entire aggregated multi-meter on-site load (up to one megawatt) instead of installing separate facilities at each meter. This is particularly important for agricultural, commercial, school, and government customers who can have several meters on one property.

(2) Significant obstacles continue to block some customers from efficiently and economically participating in the NEM program. Specifically, customers with multiple meters, such as farmers with separate meters for each of their irrigation pumps and other functions, are currently required to have separate renewable facilities for each meter to utilize NEM. This can be very costly and inefficient.

(3) Aggregation of multiple meters behind larger DG systems will improve the cost-effectiveness of NEM by enabling larger more efficient installations which represent a lower marginal cost to ratepayers.

SUMMARY OF SUGGESTED AMENDMENTS

1. After the sentence:

An eligible customer-generator with multiple meters may elect to aggregate the electrical load of the meters located on the property where the generation facility is located and on all property adjacent or contiguous to the property on which the generation facility is located, if those properties are solely owned by the eligible customer-generator.

Insert the sentence:

Parcels may be divided by a street, highway or public thoroughfare as long as they are otherwise contiguous, and under the same ownership.

DIVISION ANALYSIS (Energy Division)

1. **Offering NEM to more non-residential customer-generators will lower the cost of NEM to ratepayers**.

The vast majority of renewable facilities that will take advantage of the multiple meter aggregation opportunity created by this bill will be larger non-residential applications. On that basis, any modification of the NEM program that incentivizes non-residential projects will result in the NEM program costing ratepayers less on a per project and per kWh basis.

The CPUC analyzed the net cost of the NEM program to ratepayers in March 2010[1], and found that commercial customer-generators cost comparatively less per kWh of exported generation than do residential customer-generators. The NEM program is currently capped at 5% of utility system peak load (known as the NEM "cap").[2] As of

[1] Net Energy Metering Cost-Effectiveness Evaluation ("NEM Cost-Effectiveness Evaluation") (March 2010). http://www.cpuc.ca.gov/PUC/energy/DistGen/nem_eval.htm. A summary of the key findings is attached as Appendix A.

[2] The statutory definition of the NEM cap is the point where "total rated generating capacity used by eligible [NEM] customer-generators exceeds 5 percent of the electric utility's aggregate customer peak demand." PU Code 2827(c)(1).

2008, NEM solar commercial-generators supplied about 56% of the capacity enrolled in the NEM program, but were responsible for just 10% of the total cost of the solar NEM program. Thus, while the NEM program overall represents a net cost to ratepayers, through this bill, the NEM program is likely to be more frequently subscribed by larger DG resources, which represent a lower marginal cost to ratepayers.

CPUC's study found that the nature of the customer being served made a difference in the cost borne by ratepayers. Because of their lower rates, non-residential projects cost non-participating ratepayers substantially less: the levelized net total cost of non-residential NEM facilities averages $0.03 per kWh-exported, compared to an average $0.19 per kWh-exported for residential facilities, as shown in Table 1.[3]

Table 1 also summarizes the characteristics of the solar NEM participation and impacts by residential and non-residential-sectors.

- Non-residential NEM facilities represent the majority of the MWs enrolled in the program. By the end of 2008, 7% of all solar NEM accounts were non-residential, and at the same time, non-residential NEM represented 56% of installed generation capacity.[4]

- Non-residential NEM facilities represented a net cost of $2.5 million/year, which was 13% of the total net cost of the NEM program on a per annum basis in 2008.

- The NEM program represented an annual net cost to ratepayers of $19.7 million in 2008, which is equivalent to 0.08% of annual utility revenue.

Table 1. Net Cost of Net Energy Metering Program (Solar NEM only installed through 2008)

	Residential	**Non-Residential**	**Total**
Number of Solar NEM Projects	38,380 accounts (93%)	2,864 accounts (7%)	41,244 accounts
Installed Solar NEM Capacity	162 MW (44%)	203 MW (56%)	365 MW
20-year Annualized Cost for Solar NEM Installed through 2008[5]	$17.2 Million (87%)	$2.5 Million (13%)	$19.7 Million (0.08% of total utility revenue)
Levelized ($/kwh-exported) for Solar NEM installed through 2008	$0.19/ kWh-exported	$0.03/ kWh-exported	Average $0.12/ kWh-exported

[3] NEM Cost-Effectiveness Evaluation, p. 11.
[4] Id., pp. 15-16.
[5] The 20-year annualized cost considers the net (or sum) of the bill impacts (the bill savings of a NEM customer), the billing cost (the utility's cost to bill a customer), and the avoided costs (the amount of energy the utility did not have to buy). See id., p. 47.

2. **Facilitating non-residential NEM applications would move California closer to reaching its DG goals and closer to reaching the NEM cap, but those are not reasons to oppose the bill.**

As set out in the PU Code, when NEM penetration levels reach 5% of each utility's aggregate customer peak demand (known as the NEM "cap")[6], the IOUs can stop interconnecting new NEM facilities. This bill's expansion of larger non-residential NEM systems is likely to accelerate the advance toward the cap. However, this also means that California is moving faster toward its DG policy goals, and the reconsideration of the NEM cap will be an inevitable part of the conversation.

3. **The bill maintains alignment between NEM, CSI, and Interconnection rules regarding generators sized up to 1.0 MW.**

The bill does not alter the current structure of the NEM program regarding the 1 MW system size cap and thus maintains alignment between the NEM, CSI, and the CPUC's Rule 21 interconnection standards for customer-side generators. Under the CSI program, rebates are offered for up to 1.0 MW of capacity, and capacity above 1.0 MW does not receive an incentive. Under Rule 21, systems sized up to 1.0 MW on the customer side of the meter are eligible for "Simplified Interconnection," which is a form of accelerated and less-expensive interconnection.

4. **Ratepayers would incur NEM-related costs, in the form of billing credits for T&D services, to a higher degree than otherwise permitted.**

Under current rules, NEM is only offered to customer-generators who are using NEM to offset onsite load at a specific meter. It would encourage facilities sized up to 1 MW to serve the aggregated load of multiple meters, but would only offset the load of one meter. The net generation would be exported to the grid. The other aggregated meters would still consumer energy from the grid, but not be charged for the T&D costs associated with the serving those meters which would be a cost borne by non-NEM customers.

PROGRAM BACKGROUND

NEM is an electricity tariff billing mechanism whose intent is to facilitate the installation of DG by offering retail-rate billing credits for any electricity exported to the grid at times when there is no simultaneous energy demand to utilize the generation onsite.

Under existing complementary state laws, the CPUC oversees a range of policies that support self-generation:

[6] The statutory definition of the NEM cap is the point where "total rated generating capacity used by eligible [NEM] customer-generators exceeds 5 percent of the electric utility's aggregate customer peak demand." PU Code 2827(c)(1).

1. Rebates: Rebates through the California Solar Initiative (CSI) and Self Generation Incentive Program (SGIP). The CSI program provides rebates for systems up to 1 MW (and allows systems up to 5 MW), with the exception of certain state-owned facilities (per AB 2724, 2010).

2. Simplified Interconnection: Reduced interconnection costs are available under utility Rule 21 tariffs that exempt self-generation renewable energy systems under 1 MW from most studies and fees. Rule 21 also offers these systems accelerated interconnection timelines. Separately, the CPUC exempted renewable self-generation systems from standby charges in 2003.

3. Net Energy Metering: Per PU Code 2827, NEM customer-generators who take service from IOUs have their net generation valued at the full retail rate at the time the energy is exported.[7] AB 920 requires compensation of net surplus generation above annual load.

4. Virtual Net Energy Metering: First established as part of the Multifamily Affordable Solar Housing (MASH) Program[8] in D.08-10-036, VNM allows customers to allocate the kilowatt-hour credits from the electricity generated from a single solar energy system on an affordable housing property to multiple customer accounts within that property. VNM was originally limited to MASH customers only, and D.11-07-031, among other directives, expanded both the types of customers and generation technologies eligible for VNM.

   Specifically, D.11-07-031 does not limit the expanded VNM to CSI customers. Whereas VNM was previously limited to solar PV technologies, D.11-07-031 now allows all technologies that are eligible for the full retail NEM tariff to participate in VNM. D.11-07-031 also limits the expanded VNM to customers served by a single service delivery point (SDP).[9]

LEGISLATIVE HISTORY

1. At least four other bills modifying the NEM program are pending as of this writing in this legislative session:

   - AB 2165 (Hill): Increases the generation-only NEM program cap for eligible fuel cell projects;
   - AB 2514 (Bradford): Requires the CPUC to complete a study by June 30, 2013, to determine the extent to which each class of ratepayers receiving service under NEM is paying the full cost of the services provided to them by electrical corporations and the extent to which those customers pay their share of the costs

[7] PU Code 2827(h)(2)(B).
[8] The MASH Program is a component of the CSI Program that provides incentives to multifamily affordable housing residences.
[9] Multifamily Affordable Solar Housing (MASH) participants remain the exception to the single SDP limitation in VNM.

of public purpose programs;
- SB 843 (Wolk): Facilitates a Community-Based Renewable Energy Self-Generation Program with unlimited virtual full retail rate bill credit sharing and RECs owed by interconnecting utility;
- SB 1537 (Kehoe): Prohibits the CPUC from adopting any new demand charges for NEM customers.

2. The NEM statute has been modified numerous times in the past decade. It was first established in response to AB 656 (1996), and subsequently modified by: AB 1755 (1998), AB 918 (2000), AB X1-29 (2001), SB 1038 (2002), AB 2228 (2003), AB 1214 (2004), AB 920 (2009), AB 510 (2010), and SB 489 (2011).

FISCAL IMPACT

SB 594 would require ongoing costs for 1 PURA V, for a total cost of approximately $120,234.

STATUS:

SB 594 is pending consideration in the Assembly Utilities and Commerce Committee.

SUPPORT/OPPOSITION

Support

None on file.

Opposition

None on file.

STAFF CONTACTS

Lynn Sadler, Director-OGA	(916) 327-3277	ls1@cpuc.ca.gov
Nick Zanjani, Legislative Liaison-OGA	(916) 327-3277	nkz@cpuc.ca.gov

BILL LANGUAGE

BILL NUMBER: SB 594 AMENDED
BILL TEXT

AMENDED IN ASSEMBLY MARCH 1, 2012
AMENDED IN SENATE MAY 25, 2011
AMENDED IN SENATE MAY 11, 2011
AMENDED IN SENATE APRIL 28, 2011

INTRODUCED BY Senator Wolk
(*Coauthor: Senator Blakeslee*)
(*Coauthor: Assembly Member Williams*)

FEBRUARY 17, 2011

An act to amend ~~Sections 101150 and 101160 of, and to add Sections 101161 and 101162 to, the Health and Safety~~ *Section 2827 of the Public Utilities* Code, relating to ~~public health~~ *energy* .

LEGISLATIVE COUNSEL'S DIGEST

SB 594, as amended, Wolk. ~~Local public health laboratories.~~ *Energy: net energy metering.*

Existing law relative to private energy producers requires every electric utility, 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 5% of the electric utility's aggregate customer peak demand. Existing law requires the electric utility, upon an affirmative election by the eligible customer-generator to receive service pursuant to this contract or tariff, to either: (1) provide net surplus electricity compensation for any net surplus electricity generated in the 12-month period, or (2) allow the eligible customer-generator to apply the net surplus electricity as a credit for kilowatthours subsequently supplied by the electric utility to the surplus customer-generator.

This bill would authorize an eligible customer-generator with multiple meters to elect to aggregate the electrical load of the meters located on the property where the generation facility is located and on all property adjacent or contiguous to the property on which the generation facility is located, if those properties are solely owned by the eligible customer-generator, as provided. This bill would prohibit an eligible customer-generator that chooses to aggregate from receiving net surplus electricity compensation and require the electric utility to retain kilowatthours, as prescribed.

~~Existing law establishes the State Department of Public Health and sets forth its powers and duties relating to the prevention and~~

~~control of disease, including, but not limited to, the duty to approve local public health laboratories.~~

~~This bill would recast those provisions to specify the duties of the local public health laboratories, to require the department to develop the examination for the certificate of public health microbiologist for public health laboratories in consultation with the California Association of Public Health Laboratory Directors, to require the department to adopt regulations related to training laboratories and continuing education requirements, and to define related terms. The bill would authorize the department to charge a fee as specified for providing, approving, and monitoring the continuing education program.~~

~~By requiring local agencies to comply with these certification requirements, this bill would impose a state-mandated local program.~~

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.~~

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

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

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

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

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

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

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

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

(4) "Eligible customer-generator" means a residential customer, small commercial customer as defined in subdivision (h) of Section 331, or commercial, industrial, or agricultural customer of an electric utility, who uses a renewable electrical generation facility, or a combination of those facilities, with a total capacity of not more than one megawatt, that is located on the customer's owned, leased, or rented premises, and is interconnected and operates in parallel with the electric grid, and is intended primarily to offset part or all of the customer's own electrical requirements.

(5) "Renewable electrical generation facility" means a facility that generates electricity from a renewable source listed in paragraph (1) of subdivision (a) of Section 25741 of the Public Resources Code. A small hydroelectric generation facility is not an eligible renewable electrical generation facility if it will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow.

(6) "Net energy metering" means measuring the difference between the electricity supplied through the electric grid and the electricity generated by an eligible customer-generator and fed back to the electric grid over a 12-month period as described in subdivisions (c) and (h).

(7) "Net surplus customer-generator" means an eligible customer-generator that generates more electricity during a 12-month period than is supplied by the electric utility to the eligible customer-generator during the same 12-month period.

(8) "Net surplus electricity" means all electricity generated by an eligible customer-generator measured in kilowatthours over a 12-month period that exceeds the amount of electricity consumed by that eligible customer-generator.

(9) "Net surplus electricity compensation" means a per kilowatthour rate offered by the electric utility to the net surplus customer-generator for net surplus electricity that is set by the ratemaking authority pursuant to subdivision (h).

(10) "Ratemaking authority" means, for an electrical corporation, the commission, for an electrical cooperative, its ratesetting body selected by its shareholders or members, and for a local publicly owned electric utility, the local elected body responsible for setting the rates of the local publicly owned utility.

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

(c) (1) Every electric utility shall develop a standard contract or tariff providing for net energy metering, and shall make this standard contract or tariff available to eligible customer-generators, upon request, on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds 5 percent of the electric utility's aggregate customer peak demand. Net energy metering shall be accomplished using a single meter capable of registering the flow of electricity in two directions. An additional meter or meters to monitor the flow of electricity in each direction may be installed with the consent of the eligible customer-generator, at the expense of the electric utility, and the additional metering shall be used

only to provide the information necessary to accurately bill or credit the eligible customer-generator pursuant to subdivision (h), or to collect generating system performance information for research purposes relative to a renewable electrical generation facility. If the existing electrical meter of an eligible customer-generator is not capable of measuring the flow of electricity in two directions, the eligible customer-generator shall be responsible for all expenses involved in purchasing and installing a meter that is able to measure electricity flow in two directions. If an additional meter or meters are installed, the net energy metering calculation shall yield a result identical to that of a single meter. An eligible customer-generator that is receiving service other than through the standard contract or tariff may elect to receive service through the standard contract or tariff until the electric utility reaches the generation limit set forth in this paragraph. Once the generation limit is reached, only eligible customer-generators that had previously elected to receive service pursuant to the standard contract or tariff have a right to continue to receive service pursuant to the standard contract or tariff. Eligibility for net energy metering does not limit an eligible customer-generator's eligibility for any other rebate, incentive, or credit provided by the electric utility, or pursuant to any governmental program, including rebates and incentives provided pursuant to the California Solar Initiative.

(2) An electrical corporation shall include a provision in the net energy metering contract or tariff requiring that any customer with an existing electrical generating facility and meter who enters into a new net energy metering contract shall provide an inspection report to the electrical corporation, unless the electrical generating facility and meter have been installed or inspected within the previous three years. The inspection report shall be prepared by a California licensed contractor who is not the owner or operator of the facility and meter. A California licensed electrician shall perform the inspection of the electrical portion of the facility and meter.

(3) (A) On an annual basis, every electric utility shall 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 and the net surplus electricity purchased by the electric utility pursuant to this section.

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

(C) The ratemaking authority shall develop a process for making the information required by this paragraph available to electric utilities, and for using that information to determine when, pursuant to paragraphs (1) and (4), an electric utility is not obligated to provide net energy metering to additional eligible customer-generators in its service area.

(4) An electric utility is not obligated to provide net energy metering to additional eligible customer-generators in its service area when the combined total peak demand of all electricity used by eligible customer-generators served by all the electric utilities in

that service area furnishing net energy metering to eligible customer-generators exceeds 5 percent of the aggregate customer peak demand of those electric utilities.

(d) Every electric utility shall make all necessary forms and contracts for net energy metering and net surplus electricity compensation service available for download from the Internet.

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

(2) Every electric utility shall ensure that requests for an interconnection agreement from an eligible customer-generator are processed in a time period not to exceed 30 working days from the date it receives a completed application form from the eligible customer-generator for an interconnection agreement.

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

(f) (1) If a customer participates in direct transactions pursuant to paragraph (1) of subdivision (b) of Section 365, or Section 365.1, with an electric service provider that does not provide distribution service for the direct transactions, the electric utility that provides distribution service for the eligible customer-generator is not obligated to provide net energy metering or net surplus electricity compensation to the customer.

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

(g) Except for the time-variant kilowatthour pricing portion of any tariff adopted by the commission pursuant to paragraph (4) of subdivision (a) of Section 2851, each net energy metering contract or tariff shall be identical, with respect to rate structure, all retail rate components, and any monthly charges, to the contract or tariff to which the same customer would be assigned if the customer did not use a renewable electrical generation facility, except that eligible customer-generators shall not be assessed standby charges on the electrical generating capacity or the kilowatthour production of a renewable electrical generation facility. The charges for all retail rate components for eligible customer-generators shall be based exclusively on the customer-generator's net kilowatthour consumption over a 12-month period, without regard to the eligible customer-generator's choice as to from whom it purchases electricity that is not self-generated. Any new or additional demand charge, standby charge, customer charge, minimum monthly charge,

interconnection charge, or any other charge that would increase an eligible customer-generator's costs beyond those of other customers who are not eligible customer-generators in the rate class to which the eligible customer-generator would otherwise be assigned if the customer did not own, lease, rent, or otherwise operate a renewable electrical generation facility is contrary to the intent of this section, and shall not form a part of net energy metering contracts or tariffs.

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

(1) The eligible residential or small commercial customer-generator, at the end of each 12-month period following the date of final interconnection of the eligible customer-generator's system with an electric utility, and at each anniversary date thereafter shall, be billed for electricity used during that 12-month period. The electric utility shall determine if the eligible residential or small commercial customer-generator was a net consumer or a net surplus customer-generator during that period.

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

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

(B) For all eligible customer-generators taking service under contracts or tariffs employing time-of-use rates, any net monthly consumption of electricity shall be calculated according to the terms of the contract or tariff to which the same customer would be assigned, or be eligible for, if the customer was not an eligible customer-generator. When those same customer-generators are net generators during any discrete time-of-use period, the net kilowatthours produced shall be valued at the same price per kilowatthour as the electric utility would charge for retail kilowatthour sales during that same time-of-use period. If the eligible customer-generator's time-of-use electrical meter is unable

to measure the flow of electricity in two directions, paragraph (1) of subdivision (c) shall apply.

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

(3) At the end of each 12-month period, where the electricity generated by the eligible customer-generator during the 12-month period exceeds the electricity supplied by the electric utility during that same period, the eligible customer-generator is a net surplus customer-generator and the electric utility, upon an affirmative election by the net surplus customer-generator, shall either (A) provide net surplus electricity compensation for any net surplus electricity generated during the prior 12-month period, or (B) allow the net surplus customer-generator to apply the net surplus electricity as a credit for kilowatthours subsequently supplied by the electric utility to the net surplus customer-generator. For an eligible customer-generator that does not affirmatively elect to receive service pursuant to net surplus electricity compensation, the electric utility shall retain any excess kilowatthours generated during the prior 12-month period. The eligible customer-generator not affirmatively electing to receive service pursuant to net surplus electricity compensation shall not be owed any compensation for the net surplus electricity unless the electric utility enters into a purchase agreement with the eligible customer-generator for those excess kilowatthours. Every electric utility shall provide notice to eligible customer-generators that they are eligible to receive net surplus electricity compensation for net surplus electricity, that they must elect to receive net surplus electricity compensation, and that the 12-month period commences when the electric utility receives the eligible customer-generator's election. For an electric utility that is an electrical corporation or electrical cooperative, the commission may adopt requirements for providing notice and the manner by which eligible customer-generators may elect to receive net surplus electricity compensation.

(4) (A) An eligible customer-generator with multiple meters may elect to aggregate the electrical load of the meters located on the property where the generation facility is located and on all property adjacent or contiguous to the property on which the generation facility is located, if those properties are solely owned by the eligible customer-generator. If the eligible customer-generator elects to aggregate the electric load pursuant to this paragraph, the electric utility shall use the aggregated load for the purpose of

determining whether an eligible customer-generator is a net consumer or a net surplus customer-generator during a 12-month period.

(B) If an eligible customer-generator chooses to aggregate pursuant to subparagraph (A), the eligible customer-generator shall be permanently ineligible to receive net surplus electricity compensation, and the electric utility shall retain any kilowatthours in excess of the eligible customer-generator's aggregated electrical load generated during the 12-month period.

~~(4)~~

(5) (A) The ratemaking authority shall establish a net surplus electricity compensation valuation to compensate the net surplus customer-generator for the value of net surplus electricity generated by the net surplus customer-generator. The commission shall establish the valuation in a ratemaking proceeding. The ratemaking authority for a local publicly owned electric utility shall establish the valuation in a public proceeding. The net surplus electricity compensation valuation shall be established so as to provide the net surplus customer-generator just and reasonable compensation for the value of net surplus electricity, while leaving other ratepayers unaffected. The ratemaking authority shall determine whether the compensation will include, where appropriate justification exists, either or both of the following components:

(i) The value of the electricity itself.

(ii) The value of the renewable attributes of the electricity.

(B) In establishing the rate pursuant to subparagraph (A), the ratemaking authority shall ensure that the rate does not result in a shifting of costs between eligible customer-generators and other bundled service customers.

~~(5)~~

(6) (A) Upon adoption of the net surplus electricity compensation rate by the ratemaking authority, any renewable energy credit, as defined in Section 399.12, for net surplus electricity purchased by the electric utility shall belong to the electric utility. Any renewable energy credit associated with electricity generated by the eligible customer-generator that is utilized by the eligible customer-generator shall remain the property of the eligible customer-generator.

(B) Upon adoption of the net surplus electricity compensation rate by the ratemaking authority, the net surplus electricity purchased by the electric utility shall count toward the electric utility's renewables portfolio standard annual procurement targets for the purposes of paragraph (1) of subdivision (b) of Section 399.15, or for a local publicly owned electric utility, the renewables portfolio standard annual procurement targets established pursuant to Section 387.

~~(6)~~

(7) The electric utility shall provide every eligible residential or small commercial customer-generator with net electricity consumption and net surplus electricity generation information with each regular bill. That information shall include the current monetary balance owed the electric utility for net electricity consumed, or the net surplus electricity generated, since the last 12-month period ended. Notwithstanding this subdivision, an electric utility shall permit that customer to pay monthly for net energy consumed.

~~(7)~~

(8) If an eligible residential or small commercial

customer-generator terminates the customer relationship with the electric utility, the electric utility shall reconcile the eligible customer-generator's consumption and production of electricity during any part of a 12-month period following the last reconciliation, according to the requirements set forth in this subdivision, except that those requirements shall apply only to the months since the most recent 12-month bill.

~~(8)~~

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

(i) Notwithstanding any other provisions of this section, paragraphs (1), (2), and (3) shall apply to an eligible customer-generator with a capacity of more than 10 kilowatts, but not exceeding one megawatt, that receives electric service from a local publicly owned electric utility that has elected to utilize a co-energy metering program unless the local publicly owned electric utility chooses to provide service for eligible customer-generators with a capacity of more than 10 kilowatts in accordance with subdivisions (g) and (h):

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

(2) The consumption of electricity from the local publicly owned electric utility shall result in a cost to the eligible customer-generator to be priced in accordance with the standard rate charged to the eligible customer-generator in accordance with the rate structure to which the customer would be assigned if the customer did not use a renewable electrical generation facility. The generation of electricity provided to the local publicly owned electric utility shall result in a credit to the eligible customer-generator and shall be priced in accordance with the generation component, established under the applicable structure to which the customer would be assigned if the customer did not use a renewable electrical generation facility.

(3) All costs and credits shall be shown on the eligible customer-generator's bill for each billing period. In any months in which the eligible customer-generator has been a net consumer of electricity calculated on the basis of value determined pursuant to

paragraph (2), the customer-generator shall owe to the local publicly owned electric utility the balance of electricity costs and credits during that billing period. In any billing period in which the eligible customer-generator has been a net producer of electricity calculated on the basis of value determined pursuant to paragraph (2), the local publicly owned electric utility shall owe to the eligible customer-generator the balance of electricity costs and credits during that billing period. Any net credit to the eligible customer-generator of electricity costs may be carried forward to subsequent billing periods, provided that a local publicly owned electric utility may choose to carry the credit over as a kilowatthour credit consistent with the provisions of any applicable contract or tariff, including any differences attributable to the time of generation of the electricity. At the end of each 12-month period, the local publicly owned electric utility may reduce any net credit due to the eligible customer-generator to zero.

(j) A renewable electrical generation facility used by an eligible customer-generator shall meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories, including Underwriters Laboratories Incorporated and, where applicable, rules of the commission regarding safety and reliability. A customer-generator whose renewable electrical generation facility meets those standards and rules shall not be required to install additional controls, perform or pay for additional tests, or purchase additional liability insurance.

(k) If the commission determines that there are cost or revenue obligations for an electrical corporation that may not be recovered from customer-generators acting pursuant to this section, those obligations shall remain within the customer class from which any shortfall occurred and shall not be shifted to any other customer class. Net energy metering and co-energy metering customers shall not be exempt from the public goods charges imposed pursuant to Article 7 (commencing with Section 381), Article 8 (commencing with Section 385), or Article 15 (commencing with Section 399) of Chapter 2.3 of Part 1.

(l) A net energy metering, co-energy metering, or wind energy co-metering customer shall 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 of Water Resources pursuant to Section 80110 of the Water Code, as well as the costs of the department equal to the share of the department's estimated net unavoidable power purchase contract costs attributable to the customer. The commission shall incorporate the determination into an existing proceeding before the commission, and shall ensure that the charges are nonbypassable. Until the commission has made a determination regarding the nonbypassable charges, net energy metering, co-energy metering, and wind energy co-metering shall continue under the same rules, procedures, terms, and conditions as were applicable on December 31, 2002.

(m) In implementing the requirements of subdivisions (k) and (*l*), an eligible customer-generator shall not be required to replace its existing meter except as set forth in paragraph (1) of subdivision (c), nor shall the electric utility require additional measurement of usage beyond that which is necessary for customers in

the same rate class as the eligible customer-generator.

(n) It is the intent of the Legislature that the Treasurer incorporate net energy metering, including net surplus electricity compensation, co-energy metering, and wind energy co-metering projects undertaken pursuant to this section as sustainable building methods or distributive energy technologies for purposes of evaluating low-income housing projects.

~~SECTION 1. Section 101150 of the Health and Safety Code is amended to read:~~

~~101150. (a) For the purpose of protecting the community and the public health, the local health department of a city or county shall have available the services of a public health laboratory for the examination of specimens from suspected cases of infectious and environmental diseases, that may include, but need not be limited to, the examination of specimens from milk, milk products, waters, food products, vectors, and the environment.~~

~~(b) The public health laboratory shall provide the analyses required to assist in community disease surveillance and to meet the responsibilities and support the programs of the local health department.~~

~~(c) In matters concerning the public's health, the public health laboratory director shall be responsible to the local health officer whose duty it is to enforce the law in accordance with Section 101030, 101375, 101460, or 101470. This subdivision does not preclude the local health department from requiring the public health laboratory director to be administratively responsible to other local health department personnel.~~

~~(d) After consulting with the health officer, a local health department may contract with any official city or county public health laboratory or with the laboratories of the State Department of Public Health to provide the services required by this chapter.~~

~~(e) The laboratories of the State Department of Public Health are hereby designated as the public health laboratory for all local health department jurisdictions that do not otherwise have access to local public health laboratory service.~~

~~SEC. 2. Section 101160 of the Health and Safety Code is amended to read:~~

~~101160. (a) Any city or county public health laboratory established for the purposes set forth in this chapter and its personnel shall be certified by the State Department of Public Health to be in compliance with state and federal statutory or regulatory requirements pertaining to municipal and county public health laboratories and public health laboratory personnel pursuant to applicable provisions of Title 17 of the California Code of Regulations, including, but not limited to, Sections 1076, 1078, and 1079, and in compliance with the requirements of CLIA.~~

~~(b) For purposes of this article, the following terms have the following meanings:~~

~~(1) "CLIA" means the federal Clinical Laboratory Improvement Amendments of 1988 (42 U.S.C. Sec. 263a; Public Law 100-578) and the regulations adopted thereunder by the federal Health Care Financing Administration and effective on January 1, 1994, or any later date, when adopted in California pursuant to subdivision (b) of Section 1208 of the Business and Professions Code.~~

~~(2) "Public health laboratory director" means a person who meets the CLIA requirements for laboratory director and who is qualified by the State Department of Public Health to direct a public health~~

~~laboratory certified under this article and pursuant to applicable provisions of Title 17 of the California Code of Regulations, including, but not limited to, Section 1302.~~

~~(3) "Public health microbiologist" means a person who meets the CLIA requirements for testing personnel and who is authorized to perform laboratory tests or analyses pursuant to a certificate issued under this article and applicable provisions of Title 17 of the California Code of Regulations, including, but not limited to, Section 1079.~~

~~(4) "Public health microbiologist trainee" means a person meeting the academic qualifications and approved by the State Department of Public Health to train in an approved public health laboratory leading to examination and certification as a public health microbiologist under this article and pursuant to applicable provisions of Title 17 of the California Code of Regulations, including, but not limited to, Section 1080.~~

~~SEC. 3. Section 101161 is added to the Health and Safety Code, to read:~~

~~101161. The examination developed pursuant to Section 1079(c) of Title 17 of the California Code of Regulations shall be developed in consultation with the California Association of Public Health Laboratory Directors.~~

~~SEC. 4. Section 101162 is added to the Health and Safety Code, to read:~~

~~101162. The State Department of Public Health, by January 1, 2014, shall adopt regulations, in consultation with the California Association of Public Health Laboratory Directors, to do all of the following:~~

~~(a) Establish minimum requirements for training laboratories that train public health microbiologist trainees.~~

~~(b) Approve of and monitor a program of continuing education for public health microbiologists certified pursuant to this article.~~

~~(c) (1) Require a maximum of 12 hours of continuing education completed within a 12 month period, or 24 hours of continuing education completed within a 24-month period, as a condition for renewal of a certificate issued under this article.~~

~~(2) The department may charge public health microbiologists a fee, not exceeding the reasonable amount necessary to cover the costs of providing, approving, and monitoring the continuing education program, as applicable. No fee shall be imposed on a public health laboratory, or county or city health department, for approving or renewing any certificate or maintaining the continuing education program pursuant to this article.~~

~~SEC. 5. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.~~