

Introduced by Senators Murray and CampbellDecember 6, 2004

An act to amend Section 25744 of, and to add Sections 25407, 25744.4, and 25744.5 to, the Public Resources Code, and to amend Sections 399.6, 399.8, and 2827 of, and to add Section 379.8 to, the Public Utilities Code, relating to energy, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

SB 1, as introduced, Murray. Energy: renewable energy resources: California Renewables Portfolio Standard Program.

(1) Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission) to expand and accelerate development of alternative sources of energy, including solar resources. Existing law requires the Energy Commission, until January 1, 2006, and to the extent that funds are appropriated for that purpose in the annual Budget Act, to implement a grant program to accomplish specified goals, including making solar energy systems cost competitive with alternate forms of energy.

The existing Public Utilities Act requires the Public Utilities Commission (PUC) to require Pacific Gas and Electric Company, San Diego Gas and Electric, and Southern California Edison to identify a separate electrical rate component to fund programs that enhance system reliability and provide in state benefits. This rate component is a nonbypassable element of local distribution and collected on the basis of usage. The funds are collected to support cost-effective energy efficiency and conservation activities, public interest research and development not adequately provided by competitive and regulated markets, and renewable energy resources. Existing PUC resolutions refer to the nonbypassable rate component as a "Public

Goods Charge” (PGC). Existing law requires that the PGC not exceed, for any tariff schedule, the level that was in effect on January 1, 2000. Existing law requires that the PGC be adjusted annually at a rate equal to the lesser of the annual growth in electric commodity sales or inflation, as defined. Existing law requires the Energy Commission to transfer funds collected by electrical corporations for in state operation and development of existing and new and emerging renewable resources technologies into the Renewable Resource Trust Fund, to fund specified programs.

Existing law requires that 17.5% of the money collected under the renewable energy public goods charge be used to fund the Emerging Renewable Resources Account within the Renewable Resource Trust Account, for the purpose of a multiyear, consumer-based program to foster the development of emerging renewable technologies in distributed generation applications.

This bill would establish the Solar Homes Peak Energy Procurement Subaccount within the Emerging Renewable Resources Account and would make the moneys therein available, upon appropriation by the Legislature, to fund the Solar Homes Peak Energy Procurement Program, which the bill would establish. The bill would require the Energy Commission to award rebates, and would authorize the Energy Commission to provide incentives, to support the installation of solar energy systems, as defined, on existing and new residential construction. The bill would require that the amounts collected to fund energy efficiency, renewable energy, and research, development, and demonstration be set at the levels established by the PUC for 2005, and would require that any moneys collected above those 2005 levels during 2006 and 2007 be transferred to the Solar Homes Peak Energy Procurement Subaccount.

This bill would require that the PUC, on or before February 1, 2006, and in consultation with the Energy Commission, issue an order initiating an investigation and opening a ratemaking proceeding, or to expand the scope of an existing proceeding, to adopt and implement a program to invest in residential solar energy systems. The bill would require the PUC to complete its investigation and proceeding and adopt the program no later than January 1, 2008. The bill would require every local publicly owned electric utility, as defined, to establish a solar homes program consistent with the program adopted and implemented by the PUC, within a reasonable time after the PUC establishes any program for electrical corporations. Each local

publicly owned electric utility would be required to report, on an annual basis, to its customers and to the Energy Commission, information relative to the utility's solar homes program and would authorize the Energy Commission to establish guidelines for the information to be included in the annual report.

(2) Under the Reliable Electric Service Investments Act, the Energy Commission was required to hold moneys collected for renewable energy and deposited in the Renewable Resource Trust Fund until further action by the Legislature. The act requires the Energy Commission to create an initial investment plan, in accordance with specified objectives, to govern the allocation of funds in the Renewable Resource Trust Fund collected between January 1, 2002, and January 1, 2007, in order to ensure a fully competitive and self sustaining California renewable energy supply. Existing law requires the Energy Commission, on or before March 31, 2006, to prepare an investment plan proposing the application of moneys collected between January 1, 2007, and January 1, 2012.

This bill would delete the requirement that moneys collected for renewable energy and deposited in the Renewal Resource Trust Fund be held until further action by the Legislature. The bill would require the Energy Commission, on or before March 31, 2006, to prepare a report, rather than an investment plan, describing the application of moneys collected between January 1, 2007, and January 1, 2012, and to describe the use of any funds applied toward program activities during the period January 1, 2002, through March 31, 2006.

(3) Existing law authorizes a local government to develop and administer a program to encourage the construction of buildings that use solar thermal and photovoltaic systems meeting certain standards and requires that any program recognize owners and builders who participate in the program by awarding these owners and builders a "Sunny Homes Seal."

This bill would require that beginning January 1, 2008, a seller of production homes, as defined, offer the option of a solar energy system, as defined, to all customers negotiating to purchase a new production home and to disclose certain information.

(4) Existing law requires every electric service provider, as defined, to develop a standard contract or tariff providing for net energy metering, and to make this contract available to eligible customer generators, upon request. Existing law requires every electric service provider, upon request, to make available to eligible customer

generators contracts 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 0.5% of the electric service provider's aggregate customer peak demand.

This bill would require that every electric service provider, upon request, make available to eligible customer generators contracts 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 service provider's aggregate customer peak demand and would delete certain provisions of existing law relative to the annualized net metering calculation.

(5) Under existing law, a violation of the Public Utilities Act or an order or direction of the PUC is a crime.

Because various provisions of this bill are within the act and require action by the PUC to implement the bill's requirements, a violation of those provisions would be a crime thereby imposing a state-mandated local program by creating a new crime.

(6) 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 no reimbursement is required by this act for a specified reason.

Vote: $\frac{2}{3}$. Appropriation: yes. Fiscal committee: yes. State-mandated local program: yes.

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

1 SECTION 1. The Legislature finds and declares all of the
2 following:

3 (a) California has a pressing need to procure a steady supply
4 of affordable and reliable peak electricity.

5 (b) Solar generated electricity is uniquely suited to
6 California's needs because it produces electricity when
7 California needs it most, during the peak demand hours in
8 summer afternoons when the sun is brightest and air-conditioners
9 are running at capacity.

1 (c) Procuring solar electric generation capacity to meet peak
2 electricity demand increases system reliability and decreases
3 California’s dependence on unstable fossil fuel supplies.

4 (d) Solar generated electricity diversifies California’s energy
5 portfolio. California currently relies on natural gas for the bulk of
6 its electricity generation needs. Increasing energy demands place
7 increasing pressure on limited natural gas supplies and threaten
8 to raise costs.

9 (e) More than 150,000 homes will be built annually in
10 California in the coming years, challenging energy reliability and
11 affordability, and increasing air pollution, a widespread public
12 health problem that burdens all Californians.

13 (f) Investing in residential solar electricity generation
14 installations today will lower the cost of solar generated
15 electricity for all Californians in the future. In 10 years, solar
16 peak electric generation can be procured without the need for
17 rebates. Japan implemented a similar targeted program several
18 years ago. Today, the number of solar generation installations in
19 Japan continues to grow even though the subsidy program ceased
20 operation in 2004.

21 (g) Increasing California’s solar electricity generation market
22 will also bring additional manufacturing, installation, and sales
23 jobs to the state at a higher rate than most conventional energy
24 production sources.

25 (h) The Million Solar Homes Peak Energy Procurement
26 Program is a cost-effective investment by ratepayers in peak
27 electricity generation capacity and ratepayers will recoup the cost
28 of their investment through lower rates as a result of avoiding
29 purchases of electricity at peak rates, with additional system
30 reliability and pollution reduction benefits.

31 SEC. 2. Section 25407 is added to the Public Resources Code,
32 to read:

33 25407. (a) As used in this section, the following terms have
34 the following meanings:

35 (1) “kW” means kilowatts as measured from the alternating
36 current side of a solar energy system inverter consistent with
37 Section 223 of Title 15 of the United States Code.

38 (2) “Production home” means a single-family residence
39 constructed as part of a development of at least 25 homes per
40 project that is intended or offered for sale.

1 (3) “Solar energy system” means a photovoltaic solar collector
2 or other photovoltaic solar energy device that has a primary
3 purpose of providing for the collection and distribution of solar
4 energy for the generation of electricity, and that produces at least
5 one kW alternating current rated peak electricity.

6 (b) A seller of production homes shall, beginning January 1,
7 2009, offer a solar energy system option to all customers that
8 enter into negotiations to purchase a new production home. The
9 information shall include estimated total costs and estimated
10 energy savings specific to the climate zone.

11 SEC. 3. Section 25744 of the Public Resources Code is
12 amended to read:

13 25744. (a) Seventeen and one-half percent of the money
14 collected pursuant to the renewable energy public goods charge
15 shall be used for a multiyear, consumer-based program to foster
16 the development of emerging renewable technologies in
17 distributed generation applications.

18 (b) Any funds used for emerging technologies pursuant to this
19 section shall be expended in accordance with the report, subject
20 to all of the following requirements:

21 (1) Funding for emerging technologies shall be provided
22 through a competitive, market-based process that shall be in
23 place for a period of not less than five years, and shall be
24 structured so as to allow eligible emerging technology
25 manufacturers and suppliers to anticipate and plan for increased
26 sale and installation volumes over the life of the program.

27 (2) The program shall provide monetary rebates, buydowns, or
28 equivalent incentives, subject to ~~subparagraph (C)~~ *paragraph (3)*,
29 to purchasers, lessees, lessors, or sellers of eligible electricity
30 generating systems. Incentives shall benefit the end-use
31 consumer of renewable generation by directly and exclusively
32 reducing the purchase or lease cost of the eligible system, or the
33 cost of electricity produced by the eligible system. Incentives
34 shall be issued on the basis of the rated electrical generating
35 capacity of the system measured in watts, or the amount of
36 electricity production of the system, measured in kilowatthours.
37 Incentives shall be limited to a maximum percentage of the
38 system price, as determined by the commission.

39 (3) Eligible distributed emerging technologies are
40 photovoltaic, solar thermal electric, fuel cell technologies that

1 utilize renewable fuels, and wind turbines of not more than 50
2 kilowatts rated electrical generating capacity per customer site,
3 and other distributed renewable emerging technologies that meet
4 the emerging technology eligibility criteria established by the
5 commission. Eligible electricity generating systems are intended
6 primarily to offset part or all of the consumer's own electricity
7 demand, and shall not be owned by local publicly owned electric
8 utilities, nor be located at a customer site that is not receiving
9 distribution service from an electrical corporation that is subject
10 to the renewable energy public goods charge and contributing
11 funds to support programs under this chapter. All eligible
12 electricity generating system components shall be new and
13 unused, shall not have been previously placed in service in any
14 other location or for any other application, and shall have a
15 warranty of not less than five years to protect against defects and
16 undue degradation of electrical generation output. Systems and
17 their fuel resources shall be located on the same premises of the
18 end-use consumer where the consumer's own electricity demand
19 is located, and all eligible electricity generating systems shall be
20 connected to the utility grid in California. The commission may
21 require eligible electricity generating systems to have meters in
22 place to monitor and measure a system's performance and
23 generation. Only systems that will be operated in compliance
24 with applicable law and the rules of the Public Utilities
25 Commission shall be eligible for funding.

26 (4) The commission shall limit the amount of funds available
27 for any system or project of multiple systems and reduce the
28 level of funding for any system or project of multiple systems
29 that has received, or may be eligible to receive, any government
30 or utility funds, incentives, or credit.

31 (5) In awarding funding, the commission may provide
32 preference to systems that provide tangible demonstrable benefits
33 to communities with a plurality of minority or low-income
34 populations.

35 (6) In awarding funding, the commission shall develop and
36 implement eligibility criteria and a system that provides
37 preference to systems based upon system performance, taking
38 into account factors, including, but not limited to, shading,
39 insulation levels, and installation orientation.

1 (7) At least once annually, the commission shall publish and
2 make available to the public the balance of funds available for
3 emerging renewable energy resources *and for the Solar Homes*
4 *Peak Energy Procurement Program*, for rebates, buydowns, and
5 other incentives for the purchase of these resources, *as well as*
6 *the percentage of new homes that are equipped with solar energy*
7 *systems.*

8 (c) *Awards for solar energy systems shall be made subject to*
9 *all of the following:*

10 (1) *Awards shall be for the installation of solar energy systems*
11 *on new or existing residences located at a customer site that is or*
12 *will be receiving electrical distribution service from an electrical*
13 *corporation that is subject to Section 383 or 399.8 of the Public*
14 *Utilities Code.*

15 (2) *The maximum rebate in year one shall be no greater than*
16 *two dollars and eighty cents (\$2.80) per watt, and shall decline*
17 *each year thereafter at a rate of no less than 7 percent per year.*

18 (3) *The rebate amount shall be zero as of January 1, 2016.*

19 (4) *The schedule shall be made available to the public no less*
20 *than 60 days in advance of its adoption and the commencement*
21 *of the first decline in rebates.*

22 (5) *The commission may increase the rebate level by not more*
23 *than 50 percent above the maximum level established by the*
24 *commission pursuant to paragraph (2) for solar energy systems*
25 *that are installed on “zero energy homes.” Prior to any increase*
26 *in the rebate level, the commission shall adopt a definition of*
27 *“zero energy homes,” through a process including at least one*
28 *public hearing with not less than 30 days’ notice.*

29 (6) *The Commission may establish eligibility criteria for solar*
30 *energy systems, including the following:*

31 (A) *The solar energy system is intended primarily to offset part*
32 *or all of the consumer’s own electricity demand.*

33 (B) *All eligible solar energy system components are new and*
34 *unused, and have not previously been placed in service in any*
35 *other location or for any other application.*

36 (C) *Each eligible solar energy system has a warranty of not*
37 *less than 10 years to protect against defects and undue*
38 *degradation of electrical generation output.*

1 (D) Each eligible solar energy system is located on the same
2 premises of the end use consumer where the consumer's own
3 electricity demand is located.

4 (E) Each eligible solar energy system is connected to the
5 electrical corporation's grid within the state.

6 (7) The commission may limit the amount of funds available for
7 any system or project of multiple systems and reduce the level of
8 funding for any system or project of multiple systems that has
9 received, or may be eligible to receive, any other government or
10 utility funding, incentive, or credit.

11 (8) In awarding funding, the commission may provide
12 preference to systems that provide tangible demonstrable benefits
13 to communities with a plurality of minority or low-income
14 populations.

15 (9) Consistent with the requirements of this subdivision, the
16 commission may adjust the rebate schedule based upon changing
17 market conditions and other factors.

18 (10) The commission may provide monetary incentives to
19 purchasers, lessees, lessors, or sellers of eligible solar energy
20 systems. Any incentives provided shall benefit the end use
21 consumer by directly and exclusively reducing the purchase or
22 lease cost of the eligible solar energy system, or the cost of
23 electricity produced by the eligible solar energy system.
24 Incentives shall be issued on the basis of the rated electrical
25 capacity of the system measured in watts, or in the electricity
26 production of the system, measured in kilowatthours, as
27 determined by the commission.

28 (11) As used in this subdivision, the following terms have the
29 following meanings:

30 (A) "kW" means kilowatts as measured from the alternating
31 current side of the solar energy system inverter consistent with
32 Section 223 of Title 15 of the United States Code.

33 (B) "Solar energy system" means a photovoltaic solar
34 collector or other photovoltaic solar energy device that has a
35 primary purpose of providing for the collection and distribution
36 of solar energy for the generation of electricity, and that
37 produces at least one kW alternating current rated peak
38 electricity.

1 (C) “Solar Homes Peak Energy Procurement Program” means
2 the program established by this subdivision and administered by
3 the commission pursuant to Section 25744.5.

4 (d) Notwithstanding Section 399.6 of the Public Utilities Code,
5 the commission may expend, until December 31, 2008, up to
6 sixty million dollars (\$60,000,000) of the funding allocated to the
7 Renewable Resources Trust Fund for the program established in
8 this section, subject to the repayment requirements of subdivision
9 (f) of Section 25751.

10 SEC. 4. Section 25744.4 is added to the Public Resources
11 Code, to read:

12 25744.4. (a) The Solar Homes Peak Energy Procurement
13 Subaccount is hereby created within the Emerging Renewable
14 Resources Account. Notwithstanding Section 25751, moneys in
15 the account may only be expended upon appropriation by the
16 Legislature in the annual Budget Act or upon supplemental
17 appropriation. The subaccount shall contain money from all
18 interest, repayments, disencumbrances, royalties, and any other
19 proceeds appropriated, transferred, or otherwise received for
20 purposes pertaining to the Solar Homes Peak Energy
21 Procurement Program. Any appropriations that are made from
22 the subaccount shall have an encumbrance period of not longer
23 than two years, and a liquidation period of not longer than four
24 years.

25 (b) The commission shall report annually to the appropriate
26 budget committees of the Legislature on any encumbrances or
27 liquidations that are outstanding at the time the commission's
28 budget is submitted to the Legislature for review.

29 (c) Any funds used for applications received after January 1,
30 2006, for the Solar Homes Peak Procurement Program shall be
31 expended in accordance with the following:

32 (1) The commission shall award rebates to support the Solar
33 Homes Peak Energy Procurement Program and shall adopt a
34 schedule of declining rebates for this purpose, subject to all of
35 the following:

36 (A) Awards shall be for the installation of solar energy systems
37 on new or existing residences located at a customer site that is or
38 will be receiving electrical distribution service from an electrical
39 corporation that is subject to Section 383 or 399.8 of the Public
40 Utilities Code.

1 (B) The maximum rebate in year one shall be no greater than
2 two dollars and eighty cents (\$2.80) per watt, and shall decline
3 each year thereafter at a rate of no less than 7 percent per year.

4 (C) The rebate amount shall be zero as of January 1, 2015.

5 (D) The schedule shall be made available to the public no less
6 than 60 days in advance of its adoption and the commencement
7 of the first decline in rebates.

8 (E) The commission may increase the rebate level by not more
9 than 50 percent above the maximum level established by the
10 commission pursuant to paragraph (2) for solar energy systems
11 that are installed on “zero energy homes.” Prior to any increase
12 in the rebate level, the commission shall adopt a definition of
13 “zero energy homes,” through a public process, including at least
14 one public hearing with not less than 30 days’ notice.

15 (F) The Commission may establish eligibility criteria for solar
16 energy systems, including the following:

17 (i) The solar energy system is intended primarily to offset part
18 or all of the consumer's own electricity demand.

19 (ii) All eligible solar energy system components are new and
20 unused, and have not previously been placed in service in any
21 other location or for any other application.

22 (iii) Each eligible solar energy system has a warranty of not
23 less than 10 years to protect against defects and undue
24 degradation of electrical generation output.

25 (iv) Each eligible solar energy system and the fuel resource for
26 the system is located on the same premises of the end-use
27 consumer where the consumer's own electricity demand is
28 located.

29 (v) Each eligible solar energy system is connected to the
30 electrical corporation's grid within the state.

31 (G) The commission may limit the amount of funds available
32 for any system or project of multiple systems and reduce the
33 level of funding for any system or project of multiple systems
34 that has received, or may be eligible to receive, any other
35 government or utility funding, incentive, or credit.

36 (H) In awarding funding, the commission may provide
37 preference to systems that provide tangible demonstrable benefits
38 to communities with a plurality of minority or low-income
39 populations.

1 (2) Consistent with the requirements of paragraph (1), the
2 commission may adjust the rebate schedule based upon changing
3 market conditions and other factors.

4 (3) The commission may provide monetary incentives to
5 purchasers, lessees, lessors, or sellers of eligible solar energy
6 systems. Any incentives provided shall benefit the end-use
7 consumer by directly and exclusively reducing the purchase or
8 lease cost of the eligible solar energy system, or the cost of
9 electricity produced by the eligible solar energy system.
10 Incentives shall be issued on the basis of the rated electrical
11 capacity of the system measured in watts, or in the electricity
12 production of the system, measured in kilowatthours, as
13 determined by the commission.

14 (d) The commission shall ensure proportional program support,
15 not to exceed 10 percent of overall program funds, for the
16 installation of solar energy systems on the new construction and
17 rehabilitation of affordable housing units, including single and
18 multifamily residential housing. In addition to the rebate, the
19 commission shall also ensure that additional and proportional
20 resources, not to exceed 5 percent of overall program funds, are
21 provided for the unique needs of subsidized low-income housing
22 through targeted financing mechanisms and support, including a
23 revolving loan fund, technical assistance, and other needs as
24 identified in consultation with the California Tax Credit
25 Allocation Committee.

26 (e) To ensure optimal performance of solar energy systems, the
27 commission shall make adjustments to all rebate and incentive
28 programs based on outcome and reasoned analysis of the
29 commission's performance-based incentive pilot program. These
30 adjustments shall be completed no later than January 1, 2007.

31 (f) As used in this section, the following terms have the
32 following meanings:

33 (A) "kW" means kilowatts as measured from the alternating
34 current side of the solar energy system inverter consistent with
35 Section 223 of Title 15 of the United States Code.

36 (B) "Solar energy system" means a photovoltaic solar collector
37 or other photovoltaic solar energy device that has a primary
38 purpose of providing for the collection and distribution of solar
39 energy for the generation of electricity, and that produces at least
40 one kW alternating current rated peak electricity.

1 SEC. 5. Section 25744.5 is added to the Public Resources
2 Code, to read:

3 25744.5. In administering the Solar Homes Peak Energy
4 Procurement Program, the commission shall do all the following:

5 (a) Examine financing options that could lower solar energy
6 system financing costs to the homeowner. The commission shall
7 examine wholesale and retail mortgage markets, and other issues
8 that it deems appropriate. The commission shall submit a report
9 of its findings and recommendations to the Legislature and the
10 Governor no later than January 1, 2007.

11 (b) Establish conditions on rebate or incentive awards that, as
12 determined by the commission, require or encourage all of the
13 following:

14 (1) Appropriate siting and high quality installation of solar
15 energy systems.

16 (2) Optimal solar energy system performance during periods
17 of peak electricity demand, including the use of advanced
18 metering systems, in-home performance meters, dispatchable
19 battery backup systems, and performance-based incentives.

20 (3) Appropriate energy efficiency improvements in the new or
21 existing home where the solar energy system is installed.

22 (c) Acquire, if determined to be necessary, appropriate
23 technical and administrative services or expertise to support the
24 Solar Homes Peak Energy Procurement Program. The
25 commission may award contracts to develop or administer all or
26 a portion of the Solar Homes Peak Energy Procurement Program.

27 (d) The commission shall adopt guidelines governing the Solar
28 Homes Peak Energy Procurement Program authorized under this
29 chapter, at a publicly noticed meeting offering all interested
30 parties an opportunity to comment. Substantive changes to the
31 guidelines may not be adopted without at least 10 days' written
32 notice to the public. The public notice of meetings required by
33 this subdivision may not be less than 30 days. Notwithstanding
34 any other provision of law, any guidelines adopted pursuant to
35 this chapter shall be exempt from the requirements of Chapter 3.5
36 (commencing with Section 11340) of Part 1 of Division 3 of Title
37 2 of the Government Code.

38 (e) By January 1, 2007, the commission shall publish
39 educational materials designed to demonstrate how builders may

1 incorporate those energy efficiency measures that best
2 complement solar homes.

3 (f) The commission shall develop and publish the estimated
4 annual electrical savings for solar energy systems.

5 (g) The commission shall provide assistance to builders and
6 contractors in support of the Solar Homes Peak Energy
7 Procurement Program. The assistance includes technical
8 workshops, training, educational materials, and related research.

9 SEC. 6. Section 379.8 is added to the Public Utilities Code, to
10 read:

11 379.8. Notwithstanding any other law, on or before February
12 1, 2006, the commission, in consultation with the State Energy
13 Resources Conservation and Development Commission shall
14 issue an order initiating an investigation and opening a
15 ratemaking proceeding, or expanding the scope of an existing
16 proceeding, to adopt and implement a program to invest in
17 residential solar energy systems, consistent with all of the
18 following:

19 (a) The objective of the investigation and proceeding shall be
20 to evaluate current programs of the commission and the State
21 Energy Resources Conservation and Development Commission
22 to determine whether those programs are adequately funded to
23 achieve the goal of placing solar energy systems on 1,000,000
24 homes by December 31, 2018.

25 (b) The proceeding shall include public hearings that
26 encourage participation by a broad and diverse range of interests
27 from all areas of the state, and interested state entities, including
28 the State Energy Resources Conservation and Development
29 Commission.

30 (c) The commission shall include the reasonable cost of the
31 program in the distribution revenue requirements of electrical
32 corporations.

33 (d) Any charge imposed to fund the programs adopted and
34 implemented pursuant to this section shall be imposed upon all
35 customers.

36 (e) No charge in excess of five cents (\$0.05) per kilowatthour
37 may be imposed to fund programs adopted and implemented
38 pursuant to this section.

39 (f) The commission shall complete its investigation and
40 proceeding and adopt the program no later than January 1, 2008.

1 (g) The program adopted by the commission pursuant to this
2 section, shall be a cost-effective investment by ratepayers in peak
3 electricity generation capacity that enables ratepayers to recoup
4 the cost of their investment as a result of avoiding purchases of
5 electricity at peak rates generated by traditional powerplants and
6 peaker generation units, with additional system reliability and
7 pollution reduction benefits.

8 (h) Every local publicly owned electric utility, as defined in
9 Section 9604, shall establish a solar homes program consistent
10 with the program adopted and implemented by the commission
11 pursuant to this section, to fund program expenditure levels
12 consistent with those established for the three largest electrical
13 corporations in California, at a rate proportional to the size of the
14 ratepayer base served by the local publicly owned electric utility.
15 Every local publicly owned electric utility shall establish the
16 program within a reasonable period of time, but not to exceed six
17 months, after the commission adopts and implements any solar
18 homes program pursuant to this section. Each local publicly
19 owned electric utility shall report, on an annual basis, to its
20 customers and to the State Energy Resources Conservation and
21 Development Commission, information relative to the utility's
22 solar homes program. The State Energy Resources Conservation
23 and Development Commission may establish guidelines for the
24 information to be included in the annual report. The charge
25 imposed pursuant this subdivision shall fund the utility's
26 administrative and reporting costs pursuant to this section.

27 SEC. 7. Section 399.6 of the Public Utilities Code is amended
28 to read:

29 399.6. (a) In order to optimize public investment and ensure
30 that the most cost-effective and efficient investments in
31 renewable resources are vigorously pursued, the Energy
32 Commission shall create an investment plan as set forth in
33 paragraphs (1) to (3), inclusive, to govern the allocation of funds
34 provided pursuant to this article. The Energy Commission's
35 long-term goal shall be a fully competitive and self-sustaining
36 California renewable energy supply. The investment plan shall be
37 in accordance with all of the following:

38 (1) The investment plan's objective shall be to increase, in the
39 near term, the quantity of California's electricity generated by
40 in-state renewable energy resources, while protecting system

1 reliability, fostering resource diversity, and obtaining the greatest
2 environmental benefits for California residents.

3 (2) An additional objective of the plan shall be to identify and
4 support emerging renewable energy technologies that have the
5 greatest near-term commercial promise and that merit targeted
6 assistance.

7 (3) The investment plan shall contain specific numerical
8 targets, reflecting the projected impact of the plan, for both of the
9 following:

10 (A) Increased quantity of California electrical generation
11 produced from emerging technologies and from overall
12 renewable resources.

13 (B) Increased supply of renewable generation available from
14 facilities other than those selling to investor-owned utilities under
15 contracts entered into prior to 1996 under the federal Public
16 Utilities Regulatory Policies Act of 1978 (P.L. 95-617).

17 (b) The Energy Commission shall, on an annual basis,
18 evaluate progress on meeting the targets set forth in
19 subparagraphs (A) and (B) of paragraph (3) of subdivision (a), or
20 any substitute provisions adopted by the Legislature upon review
21 of the investment plan, and assess the impact of the investment
22 plan on reducing the cost to Californians of renewable energy
23 generation.

24 (c) In preparing ~~these investment plans~~ *the investment plan*,
25 the Energy Commission shall recommend allocations among all
26 of the following:

27 (1) (A) Except as provided in subparagraph (B), production
28 incentives for new renewable energy, including repowered or
29 refurbished renewable energy.

30 (B) Allocations may not be made for renewable energy that is
31 generated by a project that remains under a power purchase
32 contract with an electrical corporation originally entered into
33 prior to September 24, 1996, whether amended or restated
34 thereafter.

35 (c) Notwithstanding subparagraph (B), production incentives
36 for incremental new, repowered, or refurbished renewable energy
37 from existing projects under a power purchase contract with an
38 electrical corporation originally entered into prior to September
39 24, 1996, whether amended or restated thereafter, may be
40 allowed in any month, if all of the following occur:

1 (i) The project's power purchase contract provides that all
2 energy delivered and sold under the contract is paid at a price
3 that does not exceed commission-approved short-run avoided
4 cost of energy.

5 (ii) Either of the following:

6 (I) The power purchase contract is amended to provide that the
7 kilowatthours used to determine the capacity payment in any
8 time-of-delivery period in any month under the contract shall be
9 equal to the actual kilowatthour production, but no greater than
10 the five-year average of the kilowatthours delivered for the
11 corresponding time-of-delivery period and month, in the years
12 1994 to 1998, inclusive.

13 (II) If a project's installed capacity as of December 31, 1998,
14 is less than 75 percent of the nameplate capacity as stated in the
15 power purchase contract, the power purchase contract is amended
16 to provide that the kilowatthours used to determine the capacity
17 payment in any time-of-delivery period in any month under the
18 contract shall be equal to the actual kilowatthour production, but
19 no greater than the product of the five-year average of the
20 kilowatthours delivered for the corresponding time-of-delivery
21 period and month, in the years 1994 to 1998, inclusive, and the
22 ratio of installed capacity as of December 31 of the previous
23 year, but not to exceed contract nameplate capacity, to the
24 installed capacity as of December 31, 1998.

25 (iii) The production incentive is payable only with respect to
26 the kilowatthours delivered in a particular month that exceeds the
27 corresponding five-year average calculated pursuant to clause
28 (ii).

29 (2) Rebates, buydowns, or equivalent incentives for emerging
30 renewable technologies.

31 (3) Customer credits for renewables not under contract with a
32 utility.

33 (4) Customer education.

34 (5) Incentives for reducing fuel costs that are confirmed to the
35 satisfaction of the Energy Commission at solid fuel biomass
36 energy facilities in order to provide demonstrable environmental
37 and public benefits, including, but not limited to, air quality.

38 (6) Solar thermal generating resources that enhance the
39 environmental value or reliability of the electrical system and
40 that require financial assistance to remain economically viable, as

1 determined by the Energy Commission. The Energy Commission
2 may require financial disclosure from applicants for purposes of
3 this paragraph.

4 (7) Specified fuel cell technologies, if the Energy Commission
5 makes all of the following findings:

6 (A) The specified technologies have similar or better air
7 pollutant characteristics than renewable technologies in the
8 investment plan.

9 (B) The specified technologies require financial assistance to
10 become commercially viable by reference to wholesale
11 generation prices.

12 (C) The specified technologies could contribute significantly
13 to the infrastructure development or other innovation required to
14 meet the long-term objective of a self-sustaining, competitive
15 supply of renewable energy.

16 (8) Existing wind-generating resources, if the Energy
17 Commission finds that the existing wind-generating resources are
18 a cost-effective source of reliable and environmental benefits
19 compared with other eligible sources, and that the existing
20 wind-generating resources require financial assistance to remain
21 economically viable, as determined by the Energy Commission.
22 The Energy Commission may require financial disclosure from
23 applicants for the purposes of this paragraph.

24 (d) The commission shall establish a cap on the aggregate
25 amount of funds that may be awarded to public entities from the
26 program that provides customer credits for renewables. The
27 intent of the cap is to assure adequate funding of credits for
28 residential and small commercial customers.

29 ~~(e) Notwithstanding any other provision of law, moneys~~
30 ~~collected for renewable energy pursuant to this article shall be~~
31 ~~transferred to the Renewable Resource Trust Fund of the Energy~~
32 ~~Commission, to be held until further action by the Legislature.~~
33 The Energy Commission shall prepare and submit to the
34 Legislature, on or before March 31, 2001, an initial investment
35 plan for these moneys, addressing the application of moneys
36 collected between January 1, 2002, and January 1, 2007. The
37 initial investment plan shall also include an evaluation of and
38 report to the Legislature regarding the appropriateness and
39 structure of a mandatory state purchase of renewable energy. On
40 or before March 31, 2006, the Energy Commission shall prepare

1 ~~an investment plan proposing a report describing the application~~
2 ~~of moneys collected between January 1, 2007, and January 1,~~
3 ~~2012. No moneys may be expended in the years covered by these~~
4 ~~plans without further legislative action~~ *The report shall describe*
5 *the use of moneys applied toward program activities during the*
6 *period commencing January 1, 2002, through March 31, 2006.*

7 SEC. 8. Section 399.8 of the Public Utilities Code is amended
8 to read:

9 399.8. (a) In order to ensure that the citizens of this state
10 continue to receive safe, reliable, affordable, and
11 environmentally sustainable electric service, it is the policy of
12 this state and the intent of the Legislature that prudent
13 investments in energy efficiency, renewable energy, and
14 research, development and demonstration shall continue to be
15 made.

16 (b) (1) Every customer of an electrical corporation, shall pay
17 a nonbypassable system benefits charge authorized pursuant to
18 this article. The system benefits charge shall fund energy
19 efficiency, renewable energy, and research, development and
20 demonstration.

21 (2) Local publicly owned electric utilities shall continue to
22 collect and administer system benefits charges pursuant to
23 Section 385.

24 (c) (1) The commission shall require each electrical
25 corporation to identify a separate rate component to collect
26 revenues to fund energy efficiency, renewable energy, and
27 research, development and demonstration programs authorized
28 pursuant to this section beginning January 1, 2002, through
29 January 1, 2012. The rate component shall be a nonbypassable
30 element of the local distribution service and collected on the
31 basis of usage.

32 (2) This rate component may not exceed, for any tariff
33 schedule, the level of the rate component that was used to
34 recover funds authorized pursuant to Section 381 on January 1,
35 2000. If the amounts specified in paragraph (1) of subdivision (d)
36 are not recovered fully in any year, the commission shall reset
37 the rate component to restore the unrecovered balance, provided
38 that the rate component may not exceed, for any tariff schedule,
39 the level of the rate component that was used to recover funds
40 authorized pursuant to Section 381 on January 1, 2000. Pending

1 restoration, any annual shortfalls shall be allocated pro rata
2 among the three funding categories in the proportions established
3 in paragraph (1) of subdivision (d).

4 (d) The commission shall order San Diego Gas and Electric
5 Company, Southern California Edison Company, and Pacific Gas
6 and Electric Company to collect these funds commencing on
7 January 1, 2002, as follows:

8 (1) Two hundred twenty-eight million dollars (\$228,000,000)
9 per year in total for energy efficiency and conservation activities,
10 one hundred thirty-five million dollars (\$135,000,000) in total
11 per year for renewable energy, and sixty-two million five
12 hundred thousand dollars (\$62,500,000) in total per year for
13 research, development and demonstration. The funds for energy
14 efficiency and conservation activities shall continue to be
15 allocated in proportions established for the year 2000 as set forth
16 in paragraph (1) of subdivision (c) of Section 381.

17 (2) The amounts shall be adjusted annually at a rate equal to
18 the lesser of the annual growth in electric commodity sales or
19 inflation, as defined by the gross domestic product deflator. *The*
20 *amounts collected to fund energy efficiency, renewable energy,*
21 *and research, development and demonstration, shall be those*
22 *levels established by the commission for 2005. Any additional*
23 *moneys collected for the period from January 1, 2006, to*
24 *December 31, 2007, inclusive, as a result of the difference*
25 *between the rate component amount specified by paragraph (2)*
26 *of subdivision (c) and the amounts required to be collected*
27 *pursuant to this subdivision, shall be transferred at least*
28 *quarterly to the Solar Homes Peak Energy Procurement*
29 *Subaccount within the Emerging Renewable Resources Account*
30 *in the Renewable Resource Trust Fund of the State Energy*
31 *Resources Conservation and Development Commission.*

32 (e) The commission and the Energy Commission shall retain
33 and continue their oversight responsibilities as set forth in
34 Sections 381 and 383, and Chapter 7.1 (commencing with
35 Section 25620) and Chapter 8.6 (commencing with Section
36 25740) of Division 15 of the Public Resources Code.

37 (f) (1) On or before January 1, 2004, the Governor shall
38 appoint an independent review panel including, but not limited
39 to, members with expertise on the energy service needs of large
40 and small electricity consumers, system reliability issues, and

1 energy-related public policy. On or before January 1, 2005, the
2 panel shall prepare and submit to the Legislature and the Energy
3 Commission a report evaluating the energy efficiency, renewable
4 energy, and research, development and demonstration programs
5 funded under this section. Reasonable costs associated with the
6 review in each of the three program categories, including
7 technical assistance, may be charged to the relevant program
8 category under procedures to be developed by the commission
9 for energy efficiency and by the Energy Commission for
10 renewable energy and research development and demonstration.

11 (2) The report shall also assess all of the following:

12 (A) Whether ongoing programs are consistent with the
13 statutory goals.

14 (B) Whether potential synergies among the program categories
15 described in paragraph (1) that could provide enhanced public
16 value have been identified and incorporated in the programs.

17 (C) If established targets for increased renewable generation
18 are likely to be achieved.

19 (D) What changes should be made to result in a more efficient
20 use of public resources.

21 (3) The report shall also compare the Energy Commission's
22 programs with efforts undertaken by other states and assess, as an
23 alternative, the relative costs and benefits of adopting a tradable
24 minimum renewable energy requirement in California. The
25 evaluation shall include recommendations intended to optimize
26 renewable resource development at the least cost.

27 (4) For energy efficiency programs, the report shall include an
28 evaluation of all of the following:

29 (A) The net benefits secured for residential customers, taking
30 into account both public and private costs, including
31 improvements in that customer group's ability to avoid or reduce
32 consumption of relatively costly peak electricity.

33 (B) Whether the programs provide a balance of benefits to all
34 sectors that contribute to the funding.

35 (C) The extent to which competition in energy markets
36 including, but not limited to, load participation in ancillary
37 services markets, and improvements in technology affect the
38 continuing need for such programs.

1 (D) The status and growth of the private, competitive energy
2 services industry that provides energy efficiency services and
3 other energy products to customers.

4 (E) The commercial availability of any new technologies that
5 reduce electricity demands during high-priced periods.

6 (F) Customers' willingness and ability to reduce consumption
7 or adopt energy efficiency measures without program support.

8 (G) The extent to which the programs have delivered
9 cost-effective energy efficiency not adequately provided by
10 markets and as a result have reduced energy demand and
11 consumption.

12 (H) The relative cost-effectiveness of program expenditures
13 compared to other current or potential expenditures to enhance
14 system reliability.

15 (5) The report shall include specific recommendations aimed
16 at assisting the Legislature in determining whether to change or
17 eliminate the collection of the system benefits charge on or after
18 January 1, 2007.

19 (6) The panel may update and revise the report as needed.

20 (g) Promptly after receiving the panel's report, the
21 commission shall convene a proceeding to address
22 implementation of the panel's energy efficiency
23 recommendations.

24 (h) An applicant for the Large Nonresidential Standard
25 Performance Contract Program funded pursuant to paragraph (1)
26 of subdivision (b) and an electrical corporation shall promptly
27 attempt to resolve disputes that arise related to the program's
28 guidelines and parameters prior to entering into a program
29 agreement. The applicant shall provide the electrical corporation
30 with written notice of any dispute. Within 10 business days after
31 receipt of the notice, the parties shall meet to resolve the dispute.
32 If the dispute is not resolved within 10 business days after the
33 date of the meeting, the electrical corporation shall notify the
34 applicant of his or her right to file a complaint with the
35 commission, which complaint shall describe the grounds for the
36 complaint, injury, and relief sought. The commission shall issue
37 its findings in response to a filed complaint within 30 business
38 days of the date of receipt of the complaint. Prior to issuance of
39 its findings, the commission shall provide a copy of the
40 complaint to the electrical corporation, which shall provide a

1 response to the complaint to the commission within five business
2 days of the date of receipt. During the dispute period, the amount
3 of estimated financial incentives shall be held in reserve until the
4 dispute is resolved.

5 *(i) The commission shall, on or before February 1, 2007, issue*
6 *an order opening a ratemaking or other appropriate proceeding*
7 *to timely implement the changes made to subdivision (d) during*
8 *the 2005 portion of the 2005-06 Regular Session.*

9 SEC. 9. Section 2827 of the Public Utilities Code is amended
10 to read:

11 2827. (a) The Legislature finds and declares that a program to
12 provide net energy metering for eligible customer-generators is
13 one way to encourage substantial private investment in
14 renewable energy resources, stimulate in-state economic growth,
15 reduce demand for electricity during peak consumption periods,
16 help stabilize California’s energy supply infrastructure, enhance
17 the continued diversification of California’s energy resource mix,
18 and reduce interconnection and administrative costs for
19 electricity suppliers.

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

21 (1) “Electric service provider” means an electrical corporation,
22 as defined in Section 218, a local publicly owned electric utility,
23 as defined in Section 9604, or an electrical cooperative, as
24 defined in Section 2776, or any other entity that offers electrical
25 service. This section shall not apply to a local publicly owned
26 electric utility, as defined in Section 9604 of the Public Utilities
27 Code, that serves more than 750,000 customers and that also
28 conveys water to its customers.

29 (2) “Eligible customer-generator” means a residential, small
30 commercial customer as defined in subdivision (h) of Section
31 331, commercial, industrial, or agricultural customer of an
32 electric service provider, who uses a solar or a wind turbine
33 electrical generating facility, or a hybrid system of both, with a
34 capacity of not more than one megawatt that is located on the
35 customer’s owned, leased, or rented premises, is interconnected
36 and operates in parallel with the electric grid, and is intended
37 primarily to offset part or all of the customer’s own electrical
38 requirements.

39 (3) “Net energy metering” means measuring the difference
40 between the electricity supplied through the electric grid and the

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

23 (4) “Wind energy co-metering” means any wind energy
24 project greater than 50 kilowatts, but not exceeding one
25 megawatt, where the difference between the electricity supplied
26 through the electric grid and the electricity generated by an
27 eligible customer-generator and fed back to the electric grid over
28 a 12-month period is as described in subdivision (h). Wind
29 energy co-metering shall be accomplished pursuant to Section
30 2827.8.

31 (5) “Co-energy metering” means a program that is the same in
32 all other respects as a net energy metering program, except that
33 the local publicly owned electric utility, as defined in Section
34 9604, has elected to apply a generation-to-generation energy and
35 time-of-use credit formula as provided in subdivision (i).

36 (6) “Ratemaking authority” means, for an electrical
37 corporation as defined in Section 218, or an electrical
38 cooperative as defined in Section 2776, the commission, and for
39 a local publicly owned electric utility as defined in Section 9604,

1 the local elected body responsible for regulating the rates of the
2 local publicly owned utility.

3 (c) (1) Every electric service provider shall develop a standard
4 contract or tariff providing for net energy metering, and shall
5 make this contract available to eligible customer-generators,
6 upon request, on a first-come-first-served basis until the time that
7 the total rated generating capacity used by eligible
8 customer-generators exceeds ~~one-half of~~ 15 percent of the
9 electric service provider's aggregate customer peak demand.

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

26 (3) Notwithstanding paragraph (1), an electric service provider
27 is not obligated to provide net energy metering to additional
28 customer-generators in its service area when the combined total
29 peak demand of all customer-generators served by all the electric
30 service providers in that service area furnishing net energy
31 metering to eligible customer-generators exceeds ~~one-half of~~ 15
32 percent of the aggregate customer peak demand of those electric
33 service providers.

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

37 (e) (1) Every electric service provider shall ensure that
38 requests for establishment of net energy metering are processed
39 in a time period not exceeding that for similarly situated
40 customers requesting new electric service, but not to exceed 30

1 working days from the date the electric service provider receives
2 a completed application form for net metering service, including
3 a signed interconnection agreement from an eligible
4 customer-generator and the electric inspection clearance from the
5 governmental authority having jurisdiction. If an electric service
6 provider is unable to process the request within the allowable
7 timeframe, the electric service provider shall notify both the
8 customer-generator and the ratemaking authority of the reason
9 for its inability to process the request and the expected
10 completion date.

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

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

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

35 (g) Each net energy metering contract or tariff shall be
36 identical, with respect to rate structure, all retail rate components,
37 and any monthly charges, to the contract or tariff to which the
38 same customer would be assigned if the customer did not use an
39 eligible solar or wind electrical generating facility, except that
40 eligible customer-generators shall not be assessed standby

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

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

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

33 (2) At the end of each 12-month period, where the electricity
34 supplied during the period by the electric service provider
35 exceeds the electricity generated by the eligible residential or
36 small commercial customer-generator during that same period,
37 the eligible residential or small commercial customer-generator is
38 a net electricity consumer and the electric service provider shall
39 be owed compensation for the eligible customer-generator's net
40 kilowatthour consumption over that same period. The

1 compensation owed for the eligible residential or small
2 commercial customer-generator's consumption shall be
3 calculated as follows:

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

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

31 ~~(C) For all residential and small commercial~~
32 ~~customer-generators and for each billing period, the net balance~~
33 ~~of moneys owed to the electric service provider for net~~
34 ~~consumption of electricity or credits owed to the~~
35 ~~customer-generator for net generation of electricity shall be~~
36 ~~carried forward as a monetary value until the end of each~~
37 ~~12-month period. For all commercial, industrial, and agricultural~~
38 ~~customer-generators the net balance of moneys owed shall be~~
39 ~~paid in accordance with the electric service provider's normal~~
40 ~~billing cycle, except that if the commercial, industrial, or~~

1 ~~agricultural~~ customer-generator is a net electricity producer over
2 a normal billing cycle, any excess kilowatthours generated during
3 the billing cycle shall be carried over to the following billing
4 period as a monetary value, calculated according to the
5 procedures set forth in this section, and appear as a credit on the
6 customer-generator's account, until the end of the annual period
7 when paragraph (3) shall apply.

8 (3) At the end of each 12-month period, where the electricity
9 generated by the eligible customer-generator during the
10 12-month period exceeds the electricity supplied by the electric
11 service provider during that same period, the eligible
12 customer-generator is a net electricity producer and the electric
13 service provider shall retain any excess kilowatthours generated
14 during the prior 12-month period. The eligible
15 customer-generator shall not be owed any compensation for
16 those excess kilowatthours unless the electric service provider
17 enters into a purchase agreement with the eligible
18 customer-generator for those excess kilowatthours.

19 (4) The electric service provider shall provide every eligible
20 residential or small commercial customer-generator with net
21 electricity consumption information with each regular bill. That
22 information shall include the current monetary balance owed the
23 electric service provider for net electricity consumed since the
24 last 12-month period ended. Notwithstanding this subdivision, an
25 electric service provider shall permit that customer to pay
26 monthly for net energy consumed.

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

35 (6) If an electric service provider providing net metering to a
36 residential or small commercial customer-generator ceases
37 providing that electrical service to that customer during any
38 12-month period, and the customer-generator enters into a new
39 net metering contract or tariff with a new electric service
40 provider, the 12-month period, with respect to that new electric

1 service provider, shall commence on the date on which the new
2 electric service provider first supplies electric service to the
3 customer-generator.

4 (i) Notwithstanding any other provisions of this section, the
5 following provisions shall apply to an eligible
6 customer-generator with a capacity of more than 10 kilowatts,
7 but not exceeding one megawatt, that receives electrical service
8 from a local publicly owned electric utility, as defined in Section
9 9604, that has elected to utilize a co-energy metering program
10 unless the electric service provider chooses to provide service for
11 eligible customer-generators with a capacity of more than 10
12 kilowatts in accordance with subdivisions (g) and (h):

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

28 (2) The consumption of electricity from the electric service
29 provider shall result in a cost to the eligible customer-generator
30 to be priced in accordance with the standard rate charged to the
31 eligible customer-generator in accordance with the rate structure
32 to which the customer would be assigned if the customer did not
33 use an eligible solar or wind electrical generating facility. The
34 generation of electricity provided to the electric service provider
35 shall result in a credit to the eligible customer-generator and shall
36 be priced in accordance with the generation component,
37 established under the applicable structure to which the customer
38 would be assigned if the customer did not use an eligible solar or
39 wind electrical generating facility.

1 (3) All costs and credits shall be shown on the eligible
2 customer-generator's bill for each billing period. In any months
3 in which the eligible customer-generator has been a net consumer
4 of electricity calculated on the basis of value determined pursuant
5 to paragraph (2), the customer-generator shall owe to the electric
6 service provider the balance of electricity costs and credits during
7 that billing period. In any billing period in which the eligible
8 customer-generator has been a net producer of electricity
9 calculated on the basis of value determined pursuant to paragraph
10 (2), the electric service provider shall owe to the eligible
11 customer-generator the balance of electricity costs and credits
12 during that billing period. Any net credit to the eligible
13 customer-generator of electricity costs may be carried forward to
14 subsequent billing periods, provided that an electric service
15 provider may choose to carry the credit over as a kilowatt hour
16 credit consistent with the provisions of any applicable tariff,
17 including any differences attributable to the time of generation of
18 the electricity. At the end of each 12-month period, the electric
19 service provider may reduce any net credit due to the eligible
20 customer-generator to zero.

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

33 (k) If the commission determines that there are cost or revenue
34 obligations for an electric corporation, as defined in Section 218,
35 that may not be recovered from customer-generators acting
36 pursuant to this section, those obligations shall remain within the
37 customer class from which any shortfall occurred and may not be
38 shifted to any other customer class. Net-metering and
39 co-metering customers shall not be exempt from the public
40 benefits charge. In its report to the Legislature, the commission

1 shall examine different methods to ensure that the public benefits
2 charge remains a nonbypassable charge.

3 (l) A net metering customer shall reimburse the Department of
4 Water Resources for all charges that would otherwise be imposed
5 on the customer by the commission to recover bond-related costs
6 pursuant to an agreement between the commission and the
7 Department of Water Resources pursuant to Section 80110 of the
8 Water Code, as well as the costs of the department equal to the
9 share of the department's estimated net unavoidable power
10 purchase contract costs attributable to the customer. The
11 commission shall incorporate the determination into an existing
12 proceeding before the commission, and shall ensure that the
13 charges are nonbypassable. Until the commission has made a
14 determination regarding the nonbypassable charges, net metering
15 shall continue under the same rules, procedures, terms, and
16 conditions as were applicable on December 31, 2002.

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

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

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

36 SEC. 10. No reimbursement is required by this act pursuant to
37 Section 6 of Article XIII B of the California Constitution because
38 the only costs that may be incurred by a local agency or school
39 district will be incurred because this act creates a new crime or
40 infraction, eliminates a crime or infraction, or changes the

1 penalty for a crime or infraction, within the meaning of Section
2 17556 of the Government Code, or changes the definition of a
3 crime within the meaning of Section 6 of Article XIII B of the
4 California Constitution.

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