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SENATE BILL

No. 1

Introduced by Senator Murray

(Principal coauthor: Assembly Member Levine)

(Coauthors: Senators Alquist, Chesbro, Ducheny, and Kehoe)

(Coauthors: Assembly Members Bermudez, Chan, Cohn, Koretz,
Laird, Leno, Lieber, Nation, Pavley, Saldana, Wolk, and Yee)

December 6, 2004

An act to add Sections 7110.3, 7110.4, and 7146 to the Business and Professions Code, to amend Section 25744 of, to add Sections 25405.5 and 25405.6 to, and to add Chapter 8.8 (commencing with Section 25780) to Division 15 of, the Public Resources Code, and to amend Sections 379.6 and 2827 of, and to add Sections 379.8 and 387.5 to, the Public Utilities Code, relating to solar electricity.

LEGISLATIVE COUNSEL'S DIGEST

SB 1, as amended, Murray. Electricity: renewable energy resources: Million Solar Roofs Initiative: contractors: regulation of electrical work.

(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.

Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations. The existing Public Utilities Act requires the 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 law requires that 17.5% of the money collected under the renewable energy public goods charge be used for a multiyear, consumer-based program to foster the development of emerging renewable technologies in distributed generation applications. Existing law requires that the funds be expended in accordance with a specified report of the Energy Commission to the Legislature, subject to certain requirements.

Existing law requires the PUC, on or before March 7, 2001, and in consultation with the Independent System Operator, to take certain actions, including, in consultation with the Energy Commission, adopting energy conservation demand-side management and other initiatives in order to reduce demand for electricity and reduce load during peak demand periods, including differential incentives for renewable or super clean distributed generation resources. Pursuant to this requirement, the PUC has developed a self-generation incentive program to encourage customers of electrical corporations to install distributed generation that operates on renewable fuel or contributes to

system reliability. Existing law requires the PUC, in consultation with the Energy Commission, to administer, until January 1, 2008, a self-generation incentive program for distributed generation resources in the same form that exists on January 1, 2004, subject to certain air emissions and efficiency standards.

This bill would establish the Million Solar Roofs Initiative, administered by the Energy Commission, with the goals of placing 1,000,000 solar energy systems, as defined or designated by the Energy Commission, on new and existing residential and commercial customer sites, or its generation capacity equivalent of 3,000 megawatts, establishing a self-sufficient solar industry in 10 years, and placing solar energy systems on 50% of new home developments in 13 years. The bill would establish the Million Solar Roofs Initiative Trust Fund and would provide that, upon appropriation by the Legislature, moneys deposited into the fund may be expended by the Energy Commission for purposes of carrying out the Million Solar Roofs Initiative. The bill would provide that up to 2% of the money in the fund may be expended for the state's costs of administration. The program would require the Energy Commission to award incentives, pursuant to a declining schedule to be adopted by the Energy Commission, and would authorize certain other incentive programs, to support the installation of eligible solar energy systems. The bill would require the Energy Commission to adopt by January 1, 2010, a performance-based incentive program, for at least 50% of the moneys expended, that is based on the actual electrical output of the solar energy system and that promotes the installation of solar energy systems that maximize electrical output to coincide with peakloads. The bill would require the Energy Commission to establish and revise eligibility criteria for solar energy systems and to establish conditions for incentives. The bill would require the Energy Commission to adopt guidelines governing the program at a publicly noticed meeting. The bill would provide that the Million Solar Roofs Initiative program supplants that portion of the program to foster the development of emerging renewable technologies that encourages installation of residential and commercial photovoltaic solar energy systems. The bill would require that, upon disbursement of funds from the Million Solar Roofs Initiative Trust Fund consistent with the Million Solar Roofs Initiative, the annual funding associated with the photovoltaic portion of the emerging renewable technologies program be deposited into the Million Solar Roofs Initiative Trust Fund, and would prohibit the

Energy Commission from establishing any other program in addition to the Million Solar Roofs Initiative program, to encourage the installation of residential and commercial photovoltaic solar energy systems. The bill would require the Energy Commission to conduct random audits of solar energy systems to evaluate their operational performance. The bill would require the Energy Commission, on or before January 1, 2009, and every year thereafter, to submit an assessment of the success of the Million Solar Roofs Initiative program to the Legislature.

This bill would require that the PUC, on or before February 1, 2006, and in consultation with the Energy Commission, issue an order opening a proceeding, or expanding the scope of an existing proceeding, to finance a comprehensive solar energy program to adequately fund the Million Solar Roofs Initiative. The bill would require funding of the Million Solar Roofs Initiative to be an element of the program adopted by the PUC, with the charge imposed not to exceed an unspecified amount per kilowatthour for each customer class, with the total amount collected not to exceed a specified aggregate dollar limit within the service territories of participating electrical corporations. The bill would require that the reasonable cost of the program be included in the distribution revenue requirements of electrical corporations. The bill would require that the program adopted by the PUC be a cost-effective investment by ratepayers in peak electricity generation capacity that enables ratepayers to recoup the cost of their investment through lower rates as a result of avoiding purchases of electricity at peak rates generated by traditional generation resources. The bill would require the PUC to adopt the program no later than January 1, 2007. The bill would provide that the Million Solar Roofs Initiative program supplants that portion of the self-generation incentive program that encourages installation of residential and commercial photovoltaic solar energy systems and would require that, upon disbursement by the Energy Commission of funds from the Million Solar Roofs Initiative Trust Fund consistent with the Million Solar Roofs Initiative program, the annual funding associated with the photovoltaic portion of the self-generation incentive program be deposited into the Million Solar Roofs Initiative Trust Fund. The bill would prohibit the PUC from establishing any other program to encourage the installation of residential and commercial solar energy systems.

This bill would require all local publicly owned electric utilities, as defined, that sell electricity at retail, on or before January 1, 2007, to adopt, implement, and finance a solar roofs initiative program, as prescribed, for the purpose of investing in, and encouraging the increased installation of, residential and commercial solar energy systems. The bill would require a local publicly owned electric utility to make certain program information available to its customers and to the Energy Commission on an annual basis beginning June 1, 2007. By imposing additional duties upon local publicly owned electric utilities, the bill would thereby impose a state-mandated local program.

(2) Existing law requires all electric service providers, 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 all electric service providers, 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 the PUC to order electric service providers to expand the availability of net energy metering so that it is offered on a first-come-first-served basis until the time that the total rated generating capacity used by all eligible customer-generators exceeds 2.5% of the electric service provider's aggregate customer peak demand.

(3) Existing law requires the Energy Commission to expand and accelerate development of alternative sources of energy, including solar resources.

This bill would require that beginning January 1, 2010, 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 constructed on land meeting certain criteria and to disclose certain information. The bill would require the Energy Commission to develop an offset program that allows a developer or seller of production homes to forego the offer requirement on a project, by installing solar energy systems generating specified amounts of electricity on other projects. The bill would require that not later than July 1, 2006, the Energy Commission initiate a public

proceeding and make findings if and under what conditions solar energy systems are to be required on new residential and nonresidential buildings. The bill would prohibit the Energy Commission from requiring that a solar energy system be installed on a residential building unless the Energy Commission determines, based upon consideration of all costs associated with the system, including the availability of certain financial incentives, that the system is cost effective when amortized over the economic life of the structure.

(4) Existing law requires individuals who perform work as electricians to become certified by January 1, 2005, and prohibits uncertified individuals from performing electrical work for which certification is required after that date. After the January 1, 2005, certification deadline, an uncertified person may perform electrical work for which certification is required to obtain on-the-job experience as a registered apprentice, if the uncertified person meets certain requirements. Existing law authorizes the California Apprenticeship Council to extend for up to two years the January 1, 2005, certification deadline.

This bill would require that the electrical work related to the installation of a solar energy system pursuant to the Million Solar Roofs Initiative program, be performed under contract by a contractor meeting certain licensure requirements. The bill would require that all persons who engage in the connection of electrical devices of 100 volt-amperes or above for a solar energy system pursuant to the Million Solar Roofs Initiative program be electricians certified pursuant to the above-described requirements.

(5) Existing law, the Contractors' State License Law, provides for the licensure and regulation of contractors and authorizes the Contractors' State License Board to conduct all functions and duties relating to the licensing, regulation, and discipline of licensees.

This bill would provide that employment of an uncertified person to perform work as an electrician for which certification is required pursuant to the above-described requirements constitutes a cause for disciplinary action. The bill would additionally provide that the failure to provide adequate direct supervision of an uncertified person performing electrical work as a registered apprentice constitutes a cause for disciplinary action. The bill would require that certain contractors seeking renewal of a licensee provide certain information

relative to their familiarity with these requirements and compliance with certain certification requirements.

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

Various provisions of this bill are within the act and require action by the PUC to implement the bill’s requirements. Because a violation of those provisions or of PUC actions to implement those provisions would be a crime, this bill would impose a state-mandated local program by creating new crimes.

(7) 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 specified reasons.

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

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

1 SECTION 1. Section 7110.3 is added to the Business and
2 Professions Code, to read:

3 7110.3. Employment of an uncertified person to perform
4 work as an electrician for which certification is required by
5 Section 3099.2 of the Labor Code constitutes a cause for
6 disciplinary action.

7 SEC. 2. Section 7110.4 is added to the Business and
8 Professions Code, to read:

9 7110.4. The failure to provide adequate direct supervision of
10 an uncertified person performing electrical work, as required by
11 Section 3099.4 of the Labor Code, constitutes a cause for
12 disciplinary action.

13 SEC. 3. Section 7146 is added to the Business and
14 Professions Code, to read:

15 7146. (a) After January 1, 2008, a licensee seeking renewal of
16 a class C-10 electrical license shall certify under penalty of
17 perjury, that the licensee is familiar with the requirements of
18 Section 3099.2 of the Labor Code and will not employ
19 uncertified persons to perform work for which certification is
20 required by Section 3099.2 of the Labor Code.

1 (b) After January 1, 2008, a licensee seeking renewal of a
2 class C-10 electrical license shall submit with a renewal
3 application, a list of current employees that perform work for
4 which certification is required by Section 3099.2 of the Labor
5 Code, and for each listed employee, one of the following:

6 (1) The employee's certification number.

7 (2) A statement that the employee is a registered apprentice
8 within the meaning of subdivision (d) of Section 3099.2 of the
9 Labor Code.

10 (3) A statement that the employee is registered with the
11 Division of Apprenticeship Standards pursuant to Section 3099.4
12 of the Labor Code.

13 (c) The registrar may charge an additional fee for license
14 renewals, not to exceed ten dollars (\$10), to administer this
15 section.

16 SEC. 4. Section 25405.5 is added to the Public Resources
17 Code, to read:

18 25405.5. (a) As used in this section, the following terms have
19 the following meanings:

20 (1) "kW" means kilowatts or 1,000 watts, as measured from
21 the alternating current side of the solar energy system inverter
22 consistent with Section 223 of Title 15 of the United States Code.

23 (2) "Production home" means a single family residence
24 constructed as part of a development of at least 50 homes per
25 project that is intended or offered for sale.

26 (3) "Solar energy system" means a photovoltaic solar collector
27 or other photovoltaic solar energy device that has a primary
28 purpose of providing for the collection and distribution of solar
29 energy for the generation of electricity, and that produces at least
30 1 kW, but not more than 1 megawatt, alternating current rated
31 peak electricity. The commission may designate a solar energy
32 device that is not a photovoltaic solar collector or other
33 photovoltaic solar energy device to be a "solar energy system" if
34 the solar energy device produces at least 1 kW, but not more than
35 1 megawatt, alternating current rated peak electricity, has the
36 primary purpose of providing for the collection and distribution
37 of solar energy for the generation of electricity, and it meets or
38 exceeds the eligibility criteria established pursuant to subdivision
39 (c) of Section 25782.

1 (b) A seller of production homes shall offer a solar energy
2 system option to all customers that enter into negotiations to
3 purchase a new production home constructed on land for which
4 an application for a tentative subdivision map has been deemed
5 complete on or after January 1, 2010, and disclose the following:

6 (1) The total installed cost of the solar energy system option.

7 (2) The estimated cost savings associated with the solar energy
8 system option, as determined by the commission pursuant to
9 Chapter 8.8 (commencing with Section 25780) of Division 15.

10 (c) The State Energy Resources Conservation and
11 Development Commission shall develop an offset program that
12 allows a developer or seller of production homes to forego the
13 offer requirement of this section on a project, by installing solar
14 energy systems generating specified amounts of electricity on
15 other projects, including, but not limited to, low-income housing,
16 multifamily, commercial, industrial, and institutional
17 developments. The amount of electricity required to be generated
18 from solar energy systems used as an offset pursuant to this
19 subdivision, shall be equal to the amount of electricity generated
20 by solar energy systems installed on a similarly sized project
21 within that climate zone, assuming 20 percent of the prospective
22 buyers would have installed solar energy systems.

23 (d) The requirements of this section shall not operate as a
24 substitute for the implementation of existing energy efficiency
25 measures, and the requirements of this section shall not result in
26 lower energy savings or lower energy efficiency levels than
27 would otherwise be achieved by the full implementation of
28 energy savings and energy efficiency standards established
29 pursuant to Section 25402.

30 SEC. 5. Section 25405.6 is added to the Public Resources
31 Code, to read:

32 25405.6. Not later than July 1, 2006, the commission shall
33 initiate a public proceeding and make findings if, and under what
34 conditions, solar energy systems shall be required on new
35 residential and new nonresidential buildings, including the
36 establishment of numerical targets. A solar energy system shall
37 not be required for a residential building unless the commission
38 determines, based upon consideration of all costs associated with
39 the system, that the system is cost effective when amortized over
40 the economic life of the structure. When determining the cost

1 effectiveness of the solar energy system, the commission shall
2 consider the availability of governmental rebates, tax deductions,
3 net-metering, and other quantifiable factors, provided that the
4 commission can determine the availability of these financial
5 incentives if a solar energy system is made mandatory and not
6 elective. The commission shall periodically update the standards
7 and adopt any revision that the commission determines is
8 necessary, including revisions that reflect changes in the financial
9 incentives originally considered by the commission when
10 determining cost effectiveness of the solar energy system. For
11 purposes of this section, “solar energy system” means a
12 photovoltaic solar collector or other photovoltaic solar energy
13 device that has a primary purpose of providing for the collection
14 and distribution of solar energy for the generation of electricity.

15 SEC. 6. Section 25744 of the Public Resources Code is
16 amended to read:

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

22 (b) Any funds used for emerging technologies pursuant to this
23 section shall be expended, except as provided in subdivisions (c)
24 and (d), in accordance with the report, subject to all of the
25 following requirements:

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

32 (2) The program shall provide monetary rebates, buydowns, or
33 equivalent incentives, subject to subparagraph (C), to purchasers,
34 lessees, lessors, or sellers of eligible electricity generating
35 systems. Incentives shall benefit the end-use consumer of
36 renewable generation by directly and exclusively reducing the
37 purchase or lease cost of the eligible system, or the cost of
38 electricity produced by the eligible system. Incentives shall be
39 issued on the basis of the rated electrical generating capacity of
40 the system measured in watts, or the amount of electricity

1 production of the system, measured in kilowatthours. Incentives
2 shall be limited to a maximum percentage of the system price, as
3 determined by the commission.

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

31 (4) The commission shall 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 government
35 or utility funds, incentives, or credit.

36 (5) 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 (6) In awarding funding, the commission shall develop and
2 implement eligibility criteria and a system that provides
3 preference to systems based upon system performance, taking
4 into account factors, including, but not limited to, shading,
5 insulation levels, and installation orientation.

6 (7) At least once annually, the commission shall publish and
7 make available to the public the balance of funds available for
8 emerging renewable energy resources for rebates, buydowns, and
9 other incentives for the purchase of these resources.

10 (c) Notwithstanding Section 399.6 of the Public Utilities Code,
11 the commission may expend, until December 31, 2008, up to
12 sixty million dollars (\$60,000,000) of the funding allocated to the
13 Renewable Resources Trust Fund for the program established in
14 this section, subject to the repayment requirements of subdivision
15 (f) of Section 25751.

16 (d) Notwithstanding Section 399.6 of the Public Utilities Code
17 and subdivision (b), the Million Solar Roofs Initiative program
18 shall supplant that portion of the program to foster the
19 development of emerging renewable technologies that encourage
20 the installation of residential and commercial photovoltaic solar
21 energy systems. Upon disbursement of funds from the Million
22 Solar Roofs Initiative Trust Fund consistent with the Million
23 Solar Roofs Initiative program established pursuant to Chapter
24 8.8 (commencing with Section 25780), the photovoltaic portion
25 of the emerging renewable technologies program shall be
26 discontinued and the annual funding associated with the
27 photovoltaic portion of the emerging renewable technologies
28 program shall be deposited into the Million Solar Roofs Initiative
29 Trust Fund. The commission shall not establish any other
30 program to encourage the installation of residential and
31 commercial photovoltaic solar energy systems.

32 SEC. 7. Chapter 8.8 (commencing with Section 25780) is
33 added to Division 15 of the Public Resources Code, to read:

34

35 CHAPTER 8.8. MILLION SOLAR ROOFS INITIATIVE

36

37 25780. The Legislature finds and declares all of the
38 following:

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

1 (b) Solar generated electricity is uniquely suited to
2 California’s needs because it produces electricity when
3 California needs it most, during the peak demand hours in
4 summer afternoons when the sun is brightest and air conditioners
5 are running at capacity.

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

9 (d) Solar generated electricity diversifies California’s energy
10 portfolio. California currently relies on natural gas for the bulk of
11 its electricity generation needs. Increasing energy demands place
12 increasing pressure on limited natural gas supplies and threaten
13 to raise costs.

14 (e) More than 150,000 homes will be built annually in
15 California in the coming years, challenging energy reliability and
16 affordability.

17 (f) Investing in residential and commercial solar electricity
18 generation installations today will lower the cost of solar
19 generated electricity for all Californians in the future. In 10
20 years, solar peak electric generation can be procured without the
21 need for rebates.

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

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

32 (i) Solar energy systems provide substantial energy reliability
33 and pollution reduction benefits. Solar energy systems also
34 diversify our energy supply and thereby reduce our dependence
35 on imported fossil fuels.

36 25781. As used in this chapter, the following terms have the
37 following meanings:

38 (a) “kW” means kilowatts or 1,000 watts, as measured from
39 the alternating current side of the solar energy system inverter
40 consistent with Section 223 of Title 15 of the United States Code.

1 (b) “kWh” means kilowatthours, as measured by the number
2 of kilowatts generated in an hour.

3 (c) “MW” means megawatts or 1,000,000 watts.

4 (d) “Solar energy system” means a photovoltaic solar collector
5 or other photovoltaic solar energy device that has a primary
6 purpose of providing for the collection and distribution of solar
7 energy for the generation of electricity, and that produces at least
8 1 kW and not more than 1 MW alternating current rated peak
9 electricity. The commission may designate a solar energy device
10 that is not a photovoltaic solar collector or other photovoltaic
11 solar energy device to be a “solar energy system” if the solar
12 energy device has the primary purpose of providing for the
13 collection and distribution of solar energy for the generation of
14 electricity, it produces at least 1 kW, but not more than 1
15 megawatt, alternating current rated peak electricity, and it meets
16 or exceeds the eligibility criteria established pursuant to
17 subdivision (c) of Section 25782.

18 (e) “Million Solar Roofs Initiative” means the program
19 established by this chapter.

20 25782. (a) (1) The commission shall develop and implement
21 a multiyear Million Solar Roofs Initiative to provide funding and
22 support to foster the installation of solar energy systems on new
23 and existing residential and commercial customer sites in
24 California. The goals of this program are the placement of solar
25 energy systems on 1,000,000 residential and commercial sites, or
26 its generation capacity equivalent of 3,000 MW, the
27 establishment of a self-sufficient solar industry in which solar
28 energy systems are a viable mainstream option for both homes
29 and businesses in 10 years, and the placement of solar energy
30 systems on 50 percent of new homes in 13 years.

31 (2) The Million Solar Roofs Initiative program shall supplant
32 that portion of the program to foster the development of
33 emerging renewable technologies funded pursuant to Section
34 25744, that encourages installation of residential and commercial
35 photovoltaic solar energy systems. Upon disbursement of funds
36 from the Million Solar Roofs Initiative Trust Fund consistent
37 with the Million Solar Roofs Initiative program, the photovoltaic
38 portion of the emerging renewable technologies program shall be
39 discontinued and the remaining funds from that program shall be
40 deposited into the Million Solar Roofs Initiative Trust Fund.

1 (3) The commission shall not establish any other program in
2 addition to the program established pursuant to this chapter, to
3 encourage the increased installation of residential and
4 commercial photovoltaic solar energy systems.

5 (b) All funds used for the Million Solar Roofs Initiative shall
6 be expended in accordance with the following:

7 (1) The commission shall award monetary incentives for
8 eligible solar energy systems not to exceed the existing level of
9 incentive in effect on January 1, 2006. The incentive level shall
10 decline each year thereafter at a rate of no less than 7 percent per
11 year and shall be zero as of December 31, 2016. The commission
12 shall adopt and publish a schedule of declining incentive levels
13 no less than 60 days in advance of the first decline in incentive
14 levels. The commission may develop incentives based upon the
15 output of electricity from the system, provided those incentives
16 are consistent with the declining incentive levels of this
17 paragraph.

18 (2) By January 1, 2010, the commission shall adopt a
19 performance-based incentive program in which at least 50
20 percent of the moneys thereafter expended pursuant to the
21 Million Solar Roofs Initiative is expended to provide incentives
22 that are based on the actual electrical output of the solar energy
23 system and that promote the installation of solar energy systems
24 that maximize electrical output to coincide with peak loads. The
25 commission shall ensure that the performance-based incentive
26 declines each year thereafter at a rate of no less than 7 percent
27 per year. In developing the performance-based incentive
28 program, the commission may:

29 (A) Apply performance-based incentives only to customer
30 classes designated by the commission.

31 (B) Design the performance-based incentives so that
32 customers may receive a higher level of incentives than under
33 incentives based on installed electrical capacity.

34 (C) Develop financing options that help offset the installation
35 costs of the solar energy system, provided that this financing is
36 ultimately repaid in full by the consumer or through the
37 application of the performance-based rebates.

38 (3) Notwithstanding paragraph (1), the commission may
39 increase the incentive level by not more than 50 percent above
40 the maximum incentive level established pursuant to paragraph

1 (1) for solar energy systems that are installed on “zero energy
2 homes” or “zero energy commercial structures.” Prior to an
3 increase in the incentive level, the commission shall adopt
4 definitions for “zero energy homes” and “zero energy
5 commercial structures” through a public process, including at
6 least one public hearing with not less than 30 days’ notice.

7 (4) Notwithstanding paragraph (1), the commission may
8 increase the incentive level by not more than 25 percent above
9 the maximum incentive level established pursuant to paragraph
10 (1) for solar energy systems that are installed on homes or
11 commercial structures that exceed the commission’s established
12 building standards by a specified percentage as determined by the
13 commission.

14 (5) Awards shall be made for the installation of eligible solar
15 energy systems on new or existing residential and commercial
16 customer sites that are or will be receiving electrical distribution
17 service from an electrical corporation that is contributing funds to
18 support the Million Solar Roofs Initiative pursuant to Section
19 379.8 of the Public Utilities Code.

20 (6) Awards shall not be made for eligible solar energy systems
21 installed on the premises of individuals or entities that are not
22 contributing funds to support the Million Solar Roofs Initiative,
23 except for the following:

24 (A) Customers that participate in the California Alternate
25 Rates for Energy (CARE) or family electric rate assistance
26 (FERA) programs are eligible to receive awards.

27 (B) An electrical corporation, where the commission
28 determines the solar energy system is appropriately sized to load
29 and is installed, operated, or part of a program to facilitate
30 achieving the goals of the Million Solar Roofs Initiative. An
31 electrical corporation that receives an award for participation in
32 the Million Solar Roofs Initiative shall not recover the value of
33 that award from ratepayers in rates. Awards for eligible solar
34 energy systems made pursuant to this subparagraph shall not
35 exceed 100 MW alternating current rated peak electricity for any
36 electrical corporation.

37 (7) A solar energy system that is installed on a nonresidential
38 structure that receives monetary incentives from the Million
39 Solar Roofs Initiative Trust Fund is subject to the requirements
40 of subdivision (h) of Section 399.14 of the Public Utilities Code,

1 if the solar energy system is an eligible renewable energy
2 resource that receives production incentives or supplemental
3 energy payments pursuant to Sections 25742 and 25743.

4 (c) The commission shall, by January 1, 2007, establish
5 eligibility criteria for solar energy systems, including the
6 following:

7 (1) Design, installation, and electrical output standards or
8 incentives.

9 (2) The solar energy system is intended primarily to offset part
10 or all of the consumer's own electricity demand.

11 (3) All components in the solar energy system are new and
12 unused, and have not previously been placed in service in any
13 other location or for any other application.

14 (4) The solar energy system has a warranty of not less than 10
15 years to protect against defects and undue degradation of
16 electrical generation output.

17 (5) The solar energy system is located on the same premises of
18 the end-use consumer where the consumer's own electricity
19 demand is located.

20 (6) The solar energy system is connected to the electrical
21 corporation's electrical distribution system within the state.

22 (7) The solar energy system has meters or other devices in
23 place to monitor and measure the system's performance and the
24 quantity of electricity generated by the system.

25 (8) The electrical work related to the installation of the solar
26 energy system is performed under contract by a California
27 contractor possessing the appropriate active license designated by
28 the Contractors' State License Board for performing electrical
29 work to install a solar energy system. A C-46 license holder shall
30 only be eligible to install a solar energy system under the Million
31 Solar Roofs Initiative program if the license is active and in good
32 standing on September 1, 2005. All persons who engage in the
33 connection of electrical devices of 100 volt-amperes or above
34 shall be electricians certified pursuant to Sections 3099 and
35 3099.2 of the Labor Code.

36 (9) The solar energy system is installed in conformance with
37 the manufacturer's specifications and in compliance with all
38 applicable electrical and building code standards.

39 (d) The commission shall establish conditions on incentives
40 that require all of the following:

1 (1) Appropriate siting and high quality installation of the solar
2 energy system by developing installation guidelines that
3 maximize the performance of the system and prevent qualified
4 systems from being inefficiently or inappropriately installed. The
5 conditions established by the commission shall not impact
6 housing designs or densities presently authorized by a city,
7 county, or city and county. The goal of this paragraph is to
8 achieve efficient installation of solar energy systems to promote
9 the greatest energy production per ratepayer dollar.

10 (2) Optimal solar energy system performance during periods
11 of peak electricity demand.

12 (3) Appropriate energy efficiency improvements in the new or
13 existing home or commercial structure where the solar energy
14 system is installed.

15 (e) The commission shall set rating standards for equipment,
16 components, and systems to assure reasonable performance and
17 to develop standards that provide for compliance with the
18 minimum ratings.

19 (f) The commission may limit the distribution of funds
20 available to the program based upon the receipt of funding or
21 financial incentives from other federal or local government or
22 public utility programs to promote solar energy. The commission
23 shall not limit the distribution of funds available to the program
24 based upon the receipt of financial loans from any governmental
25 or private entity.

26 (g) Notwithstanding subdivision (e), the commission shall
27 provide not less than 10 percent of the overall funds for the
28 Million Solar Roofs Initiative for installation of solar energy
29 systems on affordable housing projects undertaken pursuant to
30 Section 50052.5, 50053, or 50199.14 of the Health and Safety
31 Code. If deemed appropriate in consultation with the California
32 Tax Credit Allocation Committee, the commission may establish
33 a revolving loan or loan guarantee program for affordable
34 housing projects consistent with the requirements of Chapter 5.3
35 (commencing with Section 25425).

36 (h) Pursuant to this chapter, the commission may provide
37 incentives in the form of a monetary incentive or its equivalent to
38 purchasers, lessees, lessors, or sellers of an eligible solar energy
39 system. The incentive shall benefit the end-use consumer by
40 directly and exclusively reducing the purchase or lease cost of

1 the eligible solar energy system, or the cost of electricity
2 produced by the eligible solar energy system. Incentives shall be
3 issued on the basis of the rated electrical capacity of the system
4 measured in watts, or in the electricity production of the system,
5 measured in kWh, as determined by the commission.

6 25783. In administering the Million Solar Roofs Initiative,
7 the commission shall do all the following:

8 (a) Examine and implement, to the extent appropriate,
9 financing options that could lower solar energy system financing
10 costs to residential and commercial customers. The commission
11 shall examine wholesale and retail mortgage markets, and other
12 issues that it deems appropriate.

13 (b) Acquire, if the commission determines it necessary,
14 appropriate technical and administrative services or expertise to
15 support the Million Solar Roofs Initiative. The commission may
16 award contracts to develop or administer all or a portion of the
17 Million Solar Roofs Initiative.

18 (c) Publish educational materials designed to demonstrate how
19 builders may incorporate solar energy systems during
20 construction as well as energy efficiency measures that best
21 complement solar energy systems.

22 (d) Develop and publish the estimated annual electrical
23 generation and savings for solar energy systems. The estimates
24 shall vary by climate zone, type of system, size, lifecycle costs,
25 electricity prices, and other factors the commission determines to
26 be relevant to a consumer when making a purchasing decision.

27 (e) Provide assistance to builders and contractors in support of
28 the Million Solar Roofs Initiative. The assistance may include
29 technical workshops, training, educational materials, and related
30 research.

31 (f) Publish, and make available to the public, at least once
32 annually, the balance of funds available in the Million Solar
33 Roofs Initiative Trust Fund, the cost of the program, the
34 photovoltaic generating capacity installed, and the percentage of
35 new and existing residential and commercial customer sites that
36 are equipped with solar energy systems funded by the Million
37 Solar Roofs Initiative. This information shall be included in the
38 report to the Legislature made pursuant to subdivision (i).

39 (g) The commission shall annually conduct random audits of
40 solar energy systems to evaluate their operational performance.

1 (h) The commission, in consultation with the Public Utilities
2 Commission, shall evaluate the costs and benefits of having an
3 increased number of operational solar energy systems as a part of
4 the electrical system with respect to their impact upon the
5 distribution, transmission, and supply of electricity, using the best
6 available load profiling and distribution operations data from the
7 Public Utilities Commission, local publicly owned electric
8 utilities, and electrical corporations, and performance audits of
9 installed solar energy systems.

10 (i) On or before January 1, 2009, and every year thereafter, the
11 commission shall submit to the Legislature an assessment of the
12 success of the Million Solar Roofs Initiative program. That
13 assessment shall include the number of residential and
14 commercial sites that have installed solar energy systems, the
15 electrical generating capacity of the installed solar energy
16 systems, the cost of the program, total electrical system benefits,
17 including the effect on electrical service rates, environmental
18 benefits, how the program affects the operation and reliability of
19 the electrical grid, how the program has affected peak demand
20 for electricity, the progress made toward reaching the goals of the
21 program, whether the program is on schedule to meet the
22 program goals, and recommendations for improving the program
23 to meet its goals.

24 25784. (a) The commission shall adopt guidelines governing
25 the Million Solar Roofs Initiative authorized under this chapter,
26 at a publicly noticed meeting offering all interested parties an
27 opportunity to comment. Not less than 30 days' public notice
28 shall be given of the meeting required by this section, before the
29 commission initially adopts guidelines. Substantive changes to
30 the guidelines shall not be adopted without at least 10 days'
31 written notice to the public. Notwithstanding any other provision
32 of law, any guidelines adopted pursuant to this chapter shall be
33 exempt from the requirements of Chapter 3.5 (commencing with
34 Section 11340) of Part 1 of Division 3 of Title 2 of the
35 Government Code.

36 (b) Funds to further the purposes of this chapter may be
37 committed for multiple years.

38 25785. (a) The Million Solar Roofs Initiative Trust Fund is
39 hereby created in the State Treasury.

1 (b) The money in the fund may be expended to implement and
2 support the Million Solar Roofs Initiative pursuant to this chapter
3 upon appropriation by the Legislature in the annual Budget Act.
4 Up to 2 percent of the money in the fund may be expended for
5 the costs of the state's administration of this chapter, upon
6 appropriation by the Legislature.

7 (c) Revenues collected by electrical corporations pursuant to
8 Section 379.8 of the Public Utilities Code shall be transmitted to
9 the commission at least quarterly for deposit in the Million Solar
10 Roofs Initiative Trust Fund. The Treasurer shall immediately
11 deposit money received pursuant to this section into the Million
12 Solar Roofs Initiative Trust Fund for the current calendar year.

13 (d) Upon appropriation by the Legislature and notification by
14 the commission, the Controller shall pay all awards of the money
15 in the fund for purposes enumerated in this chapter. The
16 eligibility of an award shall be determined solely by the
17 commission based on the procedures it adopts under this chapter.
18 Based on the eligibility of an award, the commission shall also
19 establish the need for a multiyear commitment to any particular
20 award and so advise the Department of Finance. An eligible
21 award submitted by the commission to the Controller shall be
22 accompanied by a summary description of how payment of the
23 award furthers the purposes enumerated in this chapter, and an
24 accounting of future costs associated with any award or group of
25 awards known to the commission to represent a portion of a
26 multiyear funding commitment.

27 SEC. 8. Section 379.6 of the Public Utilities Code is amended
28 to read:

29 379.6. (a) The commission, in consultation with the State
30 Energy Resources Conservation and Development Commission,
31 shall administer, until January 1, 2008, the self-generation
32 incentive program for distributed generation resources originally
33 established pursuant to Chapter 329 of the Statutes of 2000.
34 Except as provided in subdivisions (b) and (c), the program shall
35 be administered in the same form as it existed on January 1,
36 2004.

37 (b) Eligibility for the self-generation incentive program's level
38 3 incentive category shall be subject to the following conditions:

39 (1) Commencing January 1, 2005, all combustion-operated
40 distributed generation projects using fossil fuel shall meet an

1 oxides of nitrogen (NO_x) emissions rate standard of 0.14 pounds
2 per megawatthour.

3 (2) Commencing January 1, 2007, all combustion-operated
4 distributed generation projects using fossil fuel shall meet a NO_x
5 emissions rate standard of 0.07 pounds per megawatthour and a
6 minimum efficiency of 60 percent. A minimum efficiency of 60
7 percent shall be measured as useful energy output divided by fuel
8 input. The efficiency determination shall be based on 100 percent
9 load.

10 (3) Combined heat and power units that meet the 60 percent
11 efficiency standard may take a credit to meet the applicable NO_x
12 emissions standard of 0.14 pounds per megawatthour or 0.07
13 pounds per megawatthour. Credit shall be at the rate of one
14 megawatthour for each 3.4 million British thermal units (Btus) of
15 heat recovered.

16 (4) Notwithstanding paragraphs (1) and (2), a project that does
17 not meet the applicable NO_x emission standard is eligible if it
18 meets both of the following requirements:

19 (A) The project operates solely on waste gas. The commission
20 shall require a customer that applies for an incentive pursuant to
21 this paragraph to provide an affidavit or other form of proof, that
22 specifies that the project shall be operated solely on waste gas.
23 Incentives awarded pursuant to this paragraph shall be subject to
24 refund and shall be refunded by the recipient to the extent the
25 project does not operate on waste gas. As used in this paragraph,
26 “waste gas” means natural gas that is generated as a byproduct of
27 petroleum production operations and is not eligible for delivery
28 to the utility pipeline system.

29 (B) The air quality management district or air pollution control
30 district, in issuing a permit to operate the project, determines that
31 operation of the project will produce an onsite net air emissions
32 benefit, compared to permitted onsite emissions if the project
33 does not operate. The commission shall require the customer to
34 secure the permit prior to receiving incentives.

35 (c) In administering the self-generation incentive program, the
36 commission may adjust the amount of rebates, include other
37 ultraclean and low-emission distributed generation technologies,
38 as defined in Section 353.2, and evaluate other public policy
39 interests, including, but not limited to, ratepayers, and energy
40 efficiency and environmental interests. The Million Solar Roofs

1 Initiative program shall supplant that portion of the
2 self-generation incentive program that encourages installation of
3 residential and commercial photovoltaic solar energy systems.
4 Upon disbursement by the State Energy Resources Conservation
5 and Development Commission of funds from the Million Solar
6 Roofs Initiative Trust Fund consistent with the Million Solar
7 Roofs Initiative program established pursuant to Chapter 8.8
8 (commencing with Section 25780) of Division 15 of the Public
9 Resources Code, the photovoltaic portion of the self-generation
10 incentive program shall be discontinued and the commission
11 shall order the annual funding associated with the photovoltaic
12 portion of the self-generation incentive program to be deposited
13 into the Million Solar Roofs Initiative Trust Fund. The
14 commission shall not establish any other program to encourage
15 the installation of residential and commercial solar energy
16 systems.

17 SEC. 9. Section 379.8 is added to the Public Utilities Code, to
18 read:

19 379.8. (a) As used in this section, the following terms have
20 the following meanings:

21 (1) “kW” means kilowatts or 1,000 watts, as measured from
22 the alternating current side of the solar energy system inverter
23 consistent with Section 223 of Title 15 of the United States Code.

24 (2) “kWh” means kilowatthours, as measured by the number
25 of kilowatts generated in an hour.

26 (3) “MW” means megawatts or 1,000,000 watts.

27 (4) “Solar energy system” means a photovoltaic solar collector
28 or other photovoltaic solar energy device that has a primary
29 purpose of providing for the collection and distribution of solar
30 electrical energy for the generation of electricity, and that
31 produces at least 1 kW and not more than 1 MW alternating
32 current rated peak electricity. The State Energy Resources
33 Conservation and Development Commission may designate a
34 solar energy device that is not a photovoltaic solar collector or
35 other photovoltaic solar energy device to be a “solar energy
36 system” if the solar energy device has the primary purpose of
37 providing for the collection and distribution of solar energy for
38 the generation of electricity, produces at least 1 kW, but not more
39 than 1 megawatt, alternating current rated peak electricity, and it

1 meets or exceeds the eligibility criteria established pursuant to
2 subdivision (c) of Section 25782 of the Public Resources Code.

3 (b) Notwithstanding any other law, on or before February 1,
4 2006, the commission, in consultation with the State Energy
5 Resources Conservation and Development Commission, shall
6 initiate a new proceeding or expand the scope of an existing
7 proceeding to finance a comprehensive solar energy program
8 pursuant to Chapter 8.8 (commencing with Section 25780) of
9 Division 15 of the Public Resources Code, to adequately fund the
10 Million Solar Roofs Initiative program.

11 (c) The commission's proceeding shall do all of the following:

12 (1) Order that annual funding for the photovoltaic portion of
13 the self-generation incentive program for distributed generation
14 be deposited into the Million Solar Roofs Initiative Trust Fund, at
15 the same level as was collected in the 2004-05 fiscal year.

16 (2) Determine the level of additional funding needed to
17 adequately support the goal of placing solar energy systems on
18 one million residential and commercial customer sites or its
19 equivalent of 3,000 MW solar generating capacity in the state by
20 December 31, 2018. ~~Any additional funding shall not result in
21 the collection of more than one billion eight hundred million
22 dollars (\$1,800,000,000) from customers within the service
23 territories of the participating electrical corporations.~~

24 (3) In making the determination pursuant to paragraph (2), the
25 commission shall consider the impact all existing solar incentive
26 programs will have on achieving the goals of the program,
27 including cash and noncash incentives, state and federal tax
28 benefits, credits from net energy metering that exceed the actual
29 avoided costs of the replaced generation, and benefits from
30 waivers of other electrical corporation costs and charges. For
31 purposes of this paragraph, "other electrical corporation costs and
32 charges" include the nonbypassable rate component of local
33 distribution service imposed pursuant to Article 7 (commencing
34 with Section 381) or Article 15 (commencing with Section 399),
35 standby charges, cost responsibility surcharges, and installation
36 costs.

37 (4) Encourage participation by a broad and diverse range of
38 interests from all areas of the state, and interested state entities.

1 (d) The commission shall include the reasonable cost of the
2 program in the distribution revenue requirements of electrical
3 corporations.

4 (e) Notwithstanding any other provision of law, any charge
5 imposed to fund the program adopted and implemented pursuant
6 to this section shall be imposed upon all customers not
7 participating in the California Alternate Rates for Energy
8 (CARE) or family electric rate assistance (FERA) programs as
9 provided in paragraph (2), including those residential customers
10 subject to the rate cap required by Section 80110 of the Water
11 Code for existing baseline quantities or usage up to 130 percent
12 of existing baseline quantities of electricity.

13 The costs of the program adopted and implemented pursuant to
14 this section may not be recovered from customers participating in
15 the California Alternate Rates for Energy or CARE program
16 established pursuant to Section 739.1, except to the extent that
17 program costs are recovered out of the nonbypassable system
18 benefits charge authorized pursuant to Section 399.8.

19 (f) The commission shall adopt the program no later than
20 January 1, 2007.

21 (g) The program adopted by the commission pursuant to this
22 section, shall do all of the following:

23 (1) Be a cost-effective investment by ratepayers in peak
24 electricity generation capacity that enables ratepayers to recoup
25 the cost of their investment through lower rates as a result of
26 avoiding purchases of electricity at peak rates generated by
27 traditional powerplants and peaker generation units, with
28 additional system reliability and pollution reduction benefits.

29 (2) Utilize the most cost-effective administrative mechanism
30 to adequately accomplish the goals of the program.

31 (3) Provide a predictable long-term funding mechanism
32 sufficient to encourage adequate investment by the solar industry.

33 (4) Require time-variant pricing for all ratepayers with a solar
34 energy system. The commission shall develop a time-variant
35 tariff that creates the maximum incentive for ratepayers to install
36 solar energy systems so that the system's peak electricity
37 production coincides with California's peak electricity demands
38 and that assures that ratepayers receive due value for their
39 contribution to the purchase of solar energy systems and

1 customers with solar energy systems continue to have an
2 incentive to use electricity efficiently.

3 (5) Require San Diego Gas and Electric Company, Southern
4 California Edison Company, and Pacific Gas and Electric
5 Company to each designate at least one employee to be
6 accountable for solar energy system installations and operations.

7 (6) Require San Diego Gas and Electric Company, Southern
8 California Edison Company, and Pacific Gas and Electric
9 Company to each monitor and report key solar program
10 performance and progress data to the commission in a clearly
11 identified place on the utility's Internet Web site.

12 (7) Consider energy efficiency and demand side management
13 options, in addition to solar energy system procurement, for new
14 residential and commercial construction.

15 (h) The program adopted by the commission pursuant to this
16 section shall also include elements for the purpose of funding a
17 Million Solar Roofs Initiative by the State Energy Resources
18 Conservation and Development Commission pursuant to Chapter
19 8.8 (commencing with Section 25780) of Division 15 of the
20 Public Resources Code. These program elements shall exclude
21 customers participating in the State Energy Resources
22 Conservation and Development Commission's Million Solar
23 Roofs Initiative from the rate cap for residential customers for
24 existing baseline quantities or usage by those customers of up to
25 130 percent of existing baseline quantities, as required by Section
26 80110 of the Water Code.

27 (i) Any rate structure for an electrical corporation in effect as
28 of January 1, 2006, that provides for a separate per kW energy
29 charge and a separate facilities charge for nonresidential
30 customers with a maximum demand of more than 20 kW shall
31 remain in effect for those nonresidential customers with a
32 maximum demand of more than 20 kW who participate in the
33 Million Solar Roofs Initiative pursuant to Chapter 8.8
34 (commencing with Section 25780) of Division 15 of the Public
35 Resources Code. This section does not alter or affect the
36 authority of the commission to allocate costs in a manner it
37 determines to be just and reasonable.

38 (j) Upon disbursement by the State Energy Resources
39 Conservation and Development Commission of funds from the
40 Million Solar Roofs Initiative Trust Fund consistent with the

1 Million Solar Roofs Initiative program established pursuant to
2 Chapter 8.8 (commencing with Section 25780) of Division 15 of
3 the Public Resources Code, the photovoltaic portion of the
4 self-generation incentive program shall be discontinued and the
5 commission shall order the annual funding associated with the
6 photovoltaic portion of the self-generation incentive program to
7 be deposited into the Million Solar Roofs Initiative Trust Fund.
8 The commission shall not establish any other program to
9 encourage the installation of residential and commercial
10 photovoltaic solar energy systems.

11 SEC. 10. Section 387.5 is added to the Public Utilities Code,
12 to read:

13 387.5. (a) The governing body of a local publicly owned
14 electric utility, as defined in subdivision (d) of Section 9604, that
15 sells electricity at retail, shall adopt, implement, and finance a
16 solar roofs initiative program, funded in accordance with
17 subdivision (b), for the purpose of investing in, and encouraging
18 the increased installation of, residential and commercial solar
19 energy systems. This program shall be consistent with the intent
20 and goals of the Legislature to encourage the installation of 3,000
21 megawatts of photovoltaic solar energy in California in
22 accordance with Sections 25780 and 25781, and paragraph (1) of
23 subdivision (a) of Section 25782 of the Public Resources Code.

24 (b) On or before January 1, 2007, a local publicly owned
25 electric utility shall offer monetary incentives for the installation
26 of solar energy systems of at least two dollars and eighty cents
27 (\$2.80) per installed watt, or for the electricity produced by the
28 solar energy system, measured in kWh, as determined by the
29 governing board of a local publicly owned electric utility, for
30 photovoltaic solar energy systems. The incentive level shall
31 decline each year thereafter at a rate of no less than 7 percent per
32 year.

33 (c) A local publicly owned electric utility shall initiate a public
34 proceeding to fund a solar energy program to adequately support
35 the goals of the Million Solar Roofs Initiative program in
36 accordance with Sections 25780 and 25781 and paragraph (1) of
37 subdivision (a) of Section 25782 of the Public Resources Code.
38 The proceeding shall determine what additional funding, if any,
39 is necessary to provide the incentives pursuant to subdivision (b).

1 The public proceeding shall be completed and the comprehensive
2 solar energy program established by January 1, 2007.

3 (d) A local publicly owned electric utility shall, on an annual
4 basis beginning June 1, 2007, make available to its customers
5 and to the State Energy Resources Conservation and
6 Development Commission, information relating to the utility's
7 solar roofs initiative program established pursuant to this section,
8 including, but not limited to, the number of photovoltaic solar
9 watts installed, the total number of photovoltaic systems
10 installed, the total number of applicants, the amount of incentives
11 awarded, and the contribution toward the program goals.

12 (e) It is the intent of the Legislature that, in establishing the
13 program required by this section, no moneys be diverted from
14 any existing programs for low-income ratepayers, or from
15 cost-effective energy efficiency or demand response programs.

16 (f) It is the intent of the Legislature that the statewide
17 expenditure cap for local publicly owned electric utilities shall
18 not exceed seven hundred million dollars (\$700,000,000). The
19 expenditure cap for each local publicly owned electric utility
20 shall be based on that utility's percentage of the total statewide
21 load served by all local publicly owned electric utilities.
22 Expenditures by a local publicly owned electric utility may be
23 less than the utility's cap amount, provided that funding is
24 adequate to provide the incentives required by subdivision (b).

25 SEC. 11. Section 2827 of the Public Utilities Code is
26 amended to read:

27 2827. (a) The Legislature finds and declares that a program
28 to provide net energy metering for eligible customer-generators
29 is one way to encourage substantial private investment in
30 renewable energy resources, stimulate in-state economic growth,
31 reduce demand for electricity during peak consumption periods,
32 help stabilize California's energy supply infrastructure, enhance
33 the continued diversification of California's energy resource mix,
34 and reduce interconnection and administrative costs for
35 electricity suppliers.

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

37 (1) "Electric service provider" means an electrical corporation,
38 as defined in Section 218, a local publicly owned electric utility,
39 as defined in Section 9604, or an electrical cooperative, as
40 defined in Section 2776, or any other entity that offers electrical

1 service. This section shall not apply to a local publicly owned
2 electric utility, as defined in Section 9604 of the Public Utilities
3 Code, that serves more than 750,000 customers and that also
4 conveys water to its customers.

5 (2) “Eligible customer-generator” means a residential, small
6 commercial customer as defined in subdivision (h) of Section
7 331, commercial, industrial, or agricultural customer of an
8 electric service provider, who uses a solar or a wind turbine
9 electrical generating facility, or a hybrid system of both, with a
10 capacity of not more than one megawatt that is located on the
11 customer’s owned, leased, or rented premises, is interconnected
12 and operates in parallel with the electric grid, and is intended
13 primarily to offset part or all of the customer’s own electrical
14 requirements.

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

39 (4) “Wind energy co-metering” means any wind energy
40 project greater than 50 kilowatts, but not exceeding one

1 megawatt, where the difference between the electricity supplied
2 through the electric grid and the electricity generated by an
3 eligible customer-generator and fed back to the electric grid over
4 a 12-month period is as described in subdivision (h). Wind
5 energy co-metering shall be accomplished pursuant to Section
6 2827.8.

7 (5) “Co-energy metering” means a program that is the same in
8 all other respects as a net energy metering program, except that
9 the local publicly owned electric utility, as defined in Section
10 9604, has elected to apply a generation-to-generation energy and
11 time-of-use credit formula as provided in subdivision (i).

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

18 (c) (1) Every electric service provider shall develop a standard
19 contract or tariff providing for net energy metering, and shall
20 make this contract available to eligible customer-generators,
21 upon request, on a first-come-first-served basis until the time that
22 the total rated generating capacity used by eligible
23 customer-generators exceeds 2.5 percent of the electric service
24 provider’s aggregate customer peak demand.

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

1 (3) Notwithstanding paragraph (1), an electric service provider
2 is not obligated to provide net energy metering to additional
3 customer-generators in its service area when the combined total
4 peak demand of all customer-generators served by all the electric
5 service providers in that service area furnishing net energy
6 metering to eligible customer-generators exceeds 2.5 percent of
7 the aggregate customer peak demand of those electric service
8 providers.

9 (d) Electric service providers shall make all necessary forms
10 and contracts for net metering service available for download
11 from the Internet.

12 (e) (1) Every electric service provider shall ensure that
13 requests for establishment of net energy metering are processed
14 in a time period not exceeding that for similarly situated
15 customers requesting new electric service, but not to exceed 30
16 working days from the date the electric service provider receives
17 a completed application form for net metering service, including
18 a signed interconnection agreement from an eligible
19 customer-generator and the electric inspection clearance from the
20 governmental authority having jurisdiction. If an electric service
21 provider is unable to process the request within the allowable
22 timeframe, the electric service provider shall notify both the
23 customer-generator and the ratemaking authority of the reason
24 for its inability to process the request and the expected
25 completion date.

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

36 (f) (1) If a customer participates in direct transactions
37 pursuant to paragraph (1) of subdivision (b) of Section 365 with
38 an electric supplier that does not provide distribution service for
39 the direct transactions, the service provider that provides

1 distribution service for an eligible customer-generator is not
2 obligated to provide net energy metering to the customer.

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

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

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

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

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

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

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

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

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

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

36 (4) The electric service provider shall provide every eligible
37 residential or small commercial customer-generator with net
38 electricity consumption information with each regular bill. That
39 information shall include the current monetary balance owed the
40 electric service provider for net electricity consumed since the

1 last 12-month period ended. Notwithstanding this subdivision, an
2 electric service provider shall permit that customer to pay
3 monthly for net energy consumed.

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

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

21 (i) Notwithstanding any other provisions of this section, the
22 following provisions shall apply to an eligible
23 customer-generator with a capacity of more than 10 kilowatts,
24 but not exceeding one megawatt, that receives electrical service
25 from a local publicly owned electric utility, as defined in Section
26 9604, that has elected to utilize a co-energy metering program
27 unless the electric service provider chooses to provide service for
28 eligible customer-generators with a capacity of more than 10
29 kilowatts in accordance with subdivisions (g) and (h):

30 (1) The eligible customer-generator shall be required to utilize
31 a meter, or multiple meters, capable of separately measuring
32 electricity flow in both directions. All meters shall provide
33 "time-of-use" measurements of electricity flow, and the customer
34 shall take service on a time-of-use rate schedule. If the existing
35 meter of the eligible customer-generator is not a time-of-use
36 meter or is not capable of measuring total flow of energy in both
37 directions, the eligible customer-generator shall be responsible
38 for all expenses involved in purchasing and installing a meter
39 that is both time-of-use and able to measure total electricity flow
40 in both directions. This subdivision shall not restrict the ability of

1 an eligible customer-generator to utilize any economic incentives
2 provided by a government agency or the electric service provider
3 to reduce its costs for purchasing and installing a time-of-use
4 meter.

5 (2) The consumption of electricity from the electric service
6 provider shall result in a cost to the eligible customer-generator
7 to be priced in accordance with the standard rate charged to the
8 eligible customer-generator in accordance with the rate structure
9 to which the customer would be assigned if the customer did not
10 use an eligible solar or wind electrical generating facility. The
11 generation of electricity provided to the electric service provider
12 shall result in a credit to the eligible customer-generator and shall
13 be priced in accordance with the generation component,
14 established under the applicable structure to which the customer
15 would be assigned if the customer did not use an eligible solar or
16 wind electrical generating facility.

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

37 (j) A solar or wind turbine electrical generating system, or a
38 hybrid system of both, used by an eligible customer-generator
39 shall meet all applicable safety and performance standards
40 established by the National Electrical Code, the Institute of

1 Electrical and Electronics Engineers, and accredited testing
2 laboratories such as Underwriters Laboratories and, where
3 applicable, rules of the Public Utilities Commission regarding
4 safety and reliability. A customer-generator whose solar or wind
5 turbine electrical generating system, or a hybrid system of both,
6 meets those standards and rules shall not be required to install
7 additional controls, perform or pay for additional tests, or
8 purchase additional liability insurance.

9 (k) If the commission determines that there are cost or revenue
10 obligations for an electric corporation, as defined in Section 218,
11 that may not be recovered from customer-generators acting
12 pursuant to this section, those obligations shall remain within the
13 customer class from which any shortfall occurred and may not be
14 shifted to any other customer class. Net-metering and
15 co-metering customers shall not be exempt from the public
16 benefits charge. In its report to the Legislature, the commission
17 shall examine different methods to ensure that the public benefits
18 charge remains a nonbypassable charge.

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

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

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

8 (o) It is the intent of the Legislature that the Treasurer
 9 incorporate net energy metering and co-energy metering projects
 10 undertaken pursuant to this section as sustainable building
 11 methods or distributive energy technologies for purposes of
 12 evaluating low-income housing projects.

13 SEC. 12. (a) It is the intent of the Legislature in establishing
 14 the Million Solar Roofs Initiative that all individuals or entities
 15 that contribute funds to support the Millions Solar Roofs
 16 Initiative, including residential, commercial, and governmental
 17 customers be eligible to receive awards under the initiative.

18 (b) It is the intent of the Legislature in establishing the Million
 19 Solar Roofs Initiative that no moneys be diverted from any
 20 existing programs for low-income ratepayers, or from
 21 cost-effective energy efficiency or demand response programs.

22 SEC. 13. No reimbursement is required by this act pursuant
 23 to Section 6 of Article XIII B of the California Constitution
 24 because the only costs that may be incurred by a local agency or
 25 school district will be incurred because this act creates a new
 26 crime or infraction, eliminates a crime or infraction, or changes
 27 the penalty for a crime or infraction, within the meaning of
 28 Section 17556 of the Government Code, or changes the
 29 definition of a crime within the meaning of Section 6 of Article
 30 XIII B of the California Constitution.

31 SEC. 14. No reimbursement is required by this act pursuant
 32 to Section 6 of Article XIII B of the California Constitution for
 33 certain other costs that may be incurred by a local agency or
 34 school district because a local agency or school district has the
 35 authority to levy service charges, fees, or assessments sufficient
 36 to pay for the program or level of service mandated by this act,
 37 within the meaning of Section 17556 of the Government Code.

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