

AMENDED IN ASSEMBLY MAY 2, 2007

AMENDED IN ASSEMBLY APRIL 12, 2007

CALIFORNIA LEGISLATURE—2007—08 REGULAR SESSION

ASSEMBLY BILL

No. 1470

Introduced by Assembly Member Huffman

(Principal coauthor: ~~Assembly Member Smyth~~)

(Coauthors: Assembly Members Carter, Laird, Maze, and ~~Wolk~~

***Wolk, and Saldana*)**

(Coauthors: Senators Kuehl and Romero)

February 23, 2007

An act to add the heading of Article 1 (commencing with Section 2851) to, and to add and repeal Article 2 (commencing with Section 2860) of, Chapter 9 of Part 2 of Division 1 of, the Public Utilities Code, relating to solar energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1470, as amended, Huffman. Solar energy: Solar Hot Water and Efficiency Act of 2007.

(1) Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including gas corporations. The commission is required to implement elements of the California Solar Initiative, which modifies the self-generation incentive program for distributed generation resources and provides incentives to customer-side photovoltaics and solar thermal electric projects under one megawatt. The commission is required to award monetary incentives for up to the first megawatt of alternating current generated by solar energy systems that meet the eligibility criteria established by the State Energy Resources Conservation and Development Commission (Energy

Commission). The commission is required to adopt a performance-based incentive program for solar energy photovoltaic systems and is authorized to award monetary incentives for solar thermal and solar water heating devices in a total amount up to \$100,800,000.

This bill would establish the Solar Heating and Efficiency Act of 2007. The bill would make findings and declarations of the Legislature relating to the promotion of solar hot water systems and other technologies that reduce natural gas demand. The bill would define several terms for purposes of the act. The bill would require the commission ~~to create and administer, not later than July 1, 2008, after the receipt and evaluation of data on the appropriate level and type of incentives needed to promote installation of solar hot water systems from a specified pilot program, to design and implement~~ a program to incentivize the installation of 200,000 solar hot water systems in homes and businesses throughout the state by 2017.

The bill would require the commission, in consultation with the Energy Commission and interested members of the public, to establish eligibility criteria for the solar hot water systems receiving ~~ratepayer~~ *gas customer* funded incentives ~~not later than July 1, 2008~~. The commission would be required to establish conditions on those incentives. The bill would specify that, except for the Solar Hot Water Pilot Program in San Diego, only solar heating technologies that displace electricity are eligible for a portion of California Solar Initiative funds, as determined by the commission. The commission would be required to allocate not less than 10% of the overall funds for installation of solar hot water systems for specified affordable housing projects and specify that no moneys be diverted from any existing programs for low-income ratepayers. The bill would specify that the consumer rebates decline over time and be structured to reduce the cost of solar hot water technologies. The Energy Commission, in coordinating efforts with the commission, would be required to consider, when appropriate, coupling rebates for solar hot water systems with complementary energy efficient technologies. The commission would be required to report to the Legislature, not later than July 1, 2010, on the effectiveness of the program. The bill would repeal these provisions on August 1, 2018.

(2) Existing law establishes a surcharge on all natural gas consumed in the state to fund certain low-income assistance programs, cost-effective energy efficiency and conservation activities, and public interest research and development. Existing law requires a public utility gas corporation, as defined, to collect the surcharge from natural gas

consumers, as specified. The moneys from the surcharge are deposited in the Gas Consumption Surcharge Fund and are continuously appropriated to specified entities, including to the commission, or to an entity designated by the commission, to fund low-income assistance programs, cost-effective energy efficiency and conservation activities, and public interest research and development not adequately provided by the competitive and regulated markets.

This bill would require the commission to fund the program of the Solar Hot Water and Efficiency Act of 2007, *for the service territories of the gas corporations*, through a surcharge ~~based upon the amount of natural gas consumed~~ applied to ~~ratepayers of a gas corporation gas customers in those service territories~~ based on the amount of natural gas consumed, ~~except those participating in certain existing programs for low-income ratepayers~~, not to exceed \$250,000,000 over the course of the 10-year program. The bill would require the commission to annually establish a surcharge rate for each class of ~~customer for each gas corporation gas customers~~, and would *except from the surcharge those gas customers whose household income is below 300% of the federal poverty level*. The bill would require that the program be administered by the gas corporations or 3rd party administrators, as determined by the commission, and subject to the supervision of the commission.

(3) *The bill would require the governing body of each publicly owned utility providing gas service to retail end-use gas customers, to adopt, implement, and finance a solar hot water system incentive program meeting certain requirements.*

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

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

1 SECTION 1. The heading of Article 1 (commencing with
2 Section 2851) is added to Chapter 9 of Part 2 of Division 1 of the
3 Public Utilities Code, to read:

4

5 Article 1. Solar Photovoltaic Systems

6

7 SEC. 2. Article 2 (commencing with Section 2860) is added
8 to Chapter 9 of Part 2 of Division 1 of the Public Utilities Code,
9 to read:

Article 2. Solar Hot Water Systems

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~~2860. (a) This article shall be known, and may be cited, as the Solar Hot Water and Efficiency Act of 2007.~~

~~(b) The commission shall fund the program established by this article through the use of a surcharge applied to ratepayers of a gas corporation based upon the amount of natural gas consumed. The commission shall annually establish a surcharge rate for each class of customer for each gas corporation. The surcharge shall be in addition to any other charges for natural gas sold or transported for consumption in this state.~~

~~(c) Funding for the program established by this article shall not exceed two hundred and fifty million dollars (\$250,000,000). Funds shall be allocated for the benefit of ratepayers to promote utilization of solar hot water systems.~~

2861. As used in this article, the following terms have the following meanings:

(a) "Energy Commission" means the State Energy Resources Conservation and Development Commission.

(b) "Gas customer" includes both "core" and "noncore" customers, as those terms are used in Chapter 2.2 (commencing with Section 328) of Part 1, that receive retail end-use gas service within the service territory of a gas corporation.

~~(b)~~

(c) "kWth" means the kilowatt thermal capacity of a solar hot water system, measured consistent with the standard established by the SRCC.

~~(c)~~

(d) "kWh_{th}" means kilowatthours thermal as measured by the number of kilowatts thermal generated in an hour.

~~(d)~~

(e) "New Solar Homes Partnership" means the 10-year program, administered by the Energy Commission, encouraging solar energy systems in new home construction.

~~(e)~~

(f) "Solar heating collector" means the device that is used to collect or capture heat from the sun and that is generally, but need not be, located on a roof.

~~(f)~~

1 (g) “Solar hot water system” means a solar energy device that
2 has the primary purpose of reducing demand for natural gas through
3 water heating, space heating, or other methods of capturing energy
4 from the sun to reduce natural gas consumption in a home,
5 businesses, or any building receiving natural gas that is subject to
6 the surcharge established pursuant to Section 2860, or exempt
7 from the surcharge pursuant to subdivision (c) of Section 2863,
8 and that meets or exceeds the eligibility criteria established
9 pursuant to Section 2864. “Solar hot water systems” do not include
10 solar pool heating systems.

11 ~~(g)~~
12 (h) “SRCC” means the Solar Rate and Certification Corporation.
13 2862. The Legislature finds and declares all of the following:

14 (a) California is heavily dependent on natural gas, importing
15 more than 80 percent of the natural gas it consumes.

16 (b) Rising worldwide demand for natural gas and a shrinking
17 supply create rising and unstable prices that can harm California
18 consumers and the economy.

19 (c) Natural gas is a fossil fuel and a major source of global
20 warming pollution and the pollutants that cause air pollution,
21 including smog.

22 (d) California’s growing population and economy will put a
23 strain on energy supplies and threaten the ability of the state to
24 meet its global warming goals unless specific steps are taken to
25 reduce demand and generate energy cleanly and efficiently.

26 (e) Water heating for domestic and industrial use relies almost
27 entirely on natural gas and accounts for a significant percentage
28 of the state’s natural gas consumption.

29 (f) Solar hot water systems represent the largest untapped natural
30 gas saving potential remaining in California.

31 (g) In addition to financial and energy savings, solar hot water
32 systems can help protect against future gas and electricity shortages
33 and reduce our dependence on foreign sources of energy.

34 (h) Solar hot water systems can also help preserve the
35 environment and protect public health by reducing air pollution,
36 including carbon dioxide, a leading global warming gas, and
37 nitrogen oxide, a precursor to smog.

38 (i) Growing demand for these technologies will create jobs in
39 California as well as promote greater energy independence, protect
40 consumers from rising energy costs and result in cleaner air.

1 (j) It is in the interest of the State of California to promote solar
2 hot water systems and other technologies that directly reduce
3 demand for natural gas in homes and businesses.

4 (k) It is the intent of the Legislature to build a mainstream
5 market for solar hot water systems that directly reduces demand
6 for natural gas in homes, businesses, and government buildings.
7 Toward that end, it is the goal of the Solar Hot Water and
8 Efficiency Act of 2007 to install at least 200,000 solar hot water
9 systems on homes, businesses, and government buildings
10 throughout the state by 2017, thereby lowering prices and creating
11 a self-sufficient market that will sustain itself beyond the life of
12 this program.

13 (l) It is the intent of the Legislature that the solar hot water
14 system incentives created by the act should be a cost-effective
15 investment by ~~natural gas ratepayers~~. ~~Natural gas ratepayers~~ *gas*
16 *customers*. *Gas customers* will recoup the cost of their investment
17 through lower prices as a result of avoiding purchases of natural
18 gas, and benefit from additional system stability and pollution
19 reduction benefits.

20 ~~2863. (a) In order to achieve the goals of the Legislature, the~~
21 ~~commission shall, not later than July 1, 2008, create a program to~~
22 ~~promote the installation of 200,000 solar hot water systems in~~
23 ~~homes and businesses throughout the state by 2017.~~

24 ~~(b) The program shall be administered by the gas corporations~~
25 ~~or third-party administrators, as determined by the commission,~~
26 ~~and subject to the supervision of the commission. The commission~~
27 ~~shall coordinate with the Energy Commission's New Solar Homes~~
28 ~~Partnership to achieve the goal of building zero-energy homes.~~

29 ~~(c) Not later than July 1, 2008, the commission shall establish~~
30 ~~a surcharge pursuant to Section 2860, not to exceed two hundred~~
31 ~~fifty million dollars (\$250,000,000) over the course of the 10-year~~
32 ~~program. In establishing the program required by this section, no~~
33 ~~moneys shall be diverted from any existing programs for~~
34 ~~low-income ratepayers or cost-effective energy efficiency~~
35 ~~programs. Any surcharge imposed to fund the program adopted~~
36 ~~and implemented pursuant to this section shall be imposed upon~~
37 ~~all customers not participating in the California Alternate Rates~~
38 ~~for Energy (CARE) or family electric rate assistance (FERA)~~
39 ~~programs.~~

1 2863. (a) After meaningful data is available and evaluated by
2 the commission from the Solar Hot Water Heater Pilot Project
3 conducted by the San Diego Regional Energy Organization on the
4 appropriate level and type of incentives needed to promote
5 installation of solar hot water systems, the commission shall do
6 all of the following:

7 (1) Design and implement a program applicable to the service
8 territories of a gas corporation, to achieve the goal of the
9 Legislature to promote the installation of 200,000 solar hot water
10 systems in homes and businesses throughout the state by 2017.

11 (2) The program shall be administered by gas corporations or
12 third-party administrators, as determined by the commission, and
13 subject to the supervision of the commission.

14 (3) The commission shall coordinate the program with the
15 Energy Commission's New Solar Homes Partnership to achieve
16 the goal of building zero-energy homes.

17 (b) (1) The commission shall fund the program through the use
18 of a surcharge applied to gas customers based upon the amount
19 of natural gas consumed. The surcharge shall be in addition to
20 any other charges for natural gas sold or transported for
21 consumption in this state.

22 (2) The commission shall impose the surcharge at a level that
23 is necessary to meet the goal of installing 200,000 solar hot water
24 systems on homes and businesses in California by 2017. Funding
25 for the program established by this article shall not, for the
26 collective service territories of all gas corporations, exceed two
27 hundred fifty million dollars (\$250,000,000) over the course of
28 the 10-year program.

29 (3) The commission shall annually establish a surcharge rate
30 for each class of gas customers. Any surcharge imposed to fund
31 the program designed and implemented pursuant to this article
32 shall not be imposed upon a gas customer whose household income
33 is below 300 percent of the federal poverty level.

34 (4) The gas corporation or other person or entity providing
35 revenue cycle services, as defined in Section 328.1, shall be
36 responsible for collecting the surcharge.

37 (c) Funds shall be allocated for the benefit of gas customers to
38 promote utilization of solar hot water systems.

39 (d) In designing and implementing the program required by this
40 article, no moneys shall be diverted from any existing programs

1 *for low-income ratepayers or cost-effective energy efficiency*
 2 *programs.*

3 ~~2864. (a) Not later than July 1, 2008, the~~ *The* commission, in
 4 consultation with the Energy Commission; and interested members
 5 of the public, shall establish eligibility criteria for solar hot water
 6 systems receiving ~~ratepayer funded incentives~~ *gas customer funded*
 7 *incentives pursuant to this article.* The criteria should specify and
 8 include all of the following:

9 (1) Design, installation, and energy output or displacement
 10 standards. To be eligible for rebate funding, a solar hot water
 11 system shall, at a minimum, have a SRCC OG-300 Solar Water
 12 Heating System Certification.

13 (2) Require that solar hot water system components are new
 14 and unused, and have not previously been placed in service in any
 15 other location or for any other application.

16 (3) Require that solar hot water collectors have a warranty of
 17 not less than 10 years to protect against defects and undue
 18 degradation.

19 (4) Require that solar hot water systems are in buildings
 20 connected to a natural gas utility’s distribution system within the
 21 state.

22 (5) Require that solar hot water systems have meters or other
 23 kWh_{th} measuring devices in place to monitor and measure the
 24 system’s performance and the quantity of energy generated or
 25 displaced by the system.

26 (6) Require that solar hot water systems are installed in
 27 conformity with the manufacturer’s specifications and all
 28 applicable codes and standards.

29 (b) ~~No ratepayer~~ *No gas customer* funded incentives shall be
 30 made for a solar hot water system that does not meet the eligibility
 31 criteria.

32 ~~(e) In establishing the incentive structure and criteria, the~~
 33 ~~commission shall draw upon the experience in San Diego with the~~
 34 ~~Solar Hot Water Pilot Program as well as other well-established~~
 35 ~~solar hot water incentive programs.~~

36 ~~2865. (a) No later than July 1, 2008, the~~ *The* commission shall
 37 establish conditions on ~~ratepayer funded incentives~~ *gas customer*
 38 *funded incentives pursuant to this article.* The conditions shall
 39 require both of the following:

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

10 (2) Appropriate energy efficiency improvements in the new or
11 existing home or commercial structure where the solar hot water
12 system is installed.

13 (b) The commission shall set rating standards for equipment,
14 components, and systems to ensure reasonable performance and
15 shall develop standards that provide for compliance with the
16 minimum ratings.

17 2866. The commission shall provide not less than 10 percent
18 of the overall funds for installation of solar hot water systems on
19 low-income and affordable housing projects undertaken pursuant
20 to Section 50052.5, 50053, or 50199.14 of the Health and Safety
21 Code. If deemed appropriate in consultation with the California
22 Tax Credit Allocation Committee, the commission may establish
23 a grant program or a revolving loan or loan guarantee program for
24 affordable housing projects consistent with the requirements of
25 Chapter 5.3 (commencing with Section 25425) of Division 15 of
26 the Public Resources Code.

27 2867. (a) The rebates provided through this program shall
28 decline over time. They shall be structured so as to drive down the
29 cost of the solar hot water technologies, and be paid out on a
30 performance-based incentive basis so that incentives are earned
31 based on the actual energy savings.

32 (b) The commission shall consider federal tax credits and other
33 incentives available for this technology when determining the
34 appropriate rebate amount.

35 (c) In coordinating with the commission, the Energy
36 Commission shall consider when appropriate, consider coupling
37 rebates for solar hot water systems with complementary energy
38 efficiency technologies, including, but not limited to, efficient hot
39 water heating tanks and tankless or on demand hot water systems
40 that can be installed in addition to the solar hot water system.

1 2867.1. Not later than July 1, 2010, the commission shall report
2 to the Legislature as to the effectiveness of the program and make
3 recommendations as to any changes that should be made to the
4 program. This report shall include justification for the size of the
5 rebate program in terms of total available incentive moneys as
6 well as the anticipated benefits of the program in its entirety. To
7 facilitate the understanding of how solar hot water systems compare
8 with other clean energy and energy efficiency technologies, all
9 documents related to and rebates provided by this program shall
10 be measured in both kWh_{th} and therms of natural gas saved.

11 2867.2. Except for the Solar Hot Water Pilot Program in San
12 Diego, solar hot water technologies shall not be eligible for
13 California Solar Initiative (CSI) funds, pursuant to Section 2851,
14 unless they also displace electricity, in which case only the
15 electricity displacing portion of the technology may be eligible
16 under the CSI program, as determined by the commission.

17 2867.3. *In order to further the state goal of encouraging the*
18 *installation of 200,000 solar hot water heaters by 2017, the*
19 *governing body of each publicly owned utility providing gas service*
20 *to retail end-use gas customers shall adopt, implement, and finance*
21 *a solar hot water system incentive program that does all the*
22 *following:*

23 (a) *Relies upon meaningful data from the Solar Hot Water*
24 *Heater Pilot Project conducted by the San Diego Regional Energy*
25 *Organization on the appropriate level and type of incentives needed*
26 *to promote installation of solar hot water systems.*

27 (b) *Ensures that any solar hot water system receiving monetary*
28 *incentives complies with the eligibility criteria equivalent to those*
29 *established by the commission, in consultation with the Energy*
30 *Commission and interested members of the public, pursuant to*
31 *Section 2864.*

32 (c) *Includes conditions for the receipt of monetary incentives*
33 *for solar hot water systems consistent with those adopted by the*
34 *commission pursuant to subdivision (a) of Section 2865.*

35 (d) *Includes minimum ratings for equipment, components, and*
36 *systems consistent with those adopted by the commission pursuant*
37 *to subdivision (b) of Section 2865.*

38 (e) *Provides that not less than 10 percent of the overall funds*
39 *be used for installation of solar hot water systems on low-income*
40 *and affordable housing projects undertaken pursuant to Section*

1 50052.5, 50053, or 50199.14 of the Health and Safety Code. If
2 deemed appropriate in consultation with the California Tax Credit
3 Allocation Committee, the governing board may establish a grant
4 program or a revolving loan or loan guarantee program for
5 affordable housing projects consistent with the requirements of
6 Chapter 5.3 (commencing with Section 25425) of Division 15 of
7 the Public Resources Code.

8 ~~2867.3:~~

9 2867.4. This article shall remain in effect only until August 1,
10 2018, and as of that date is repealed, unless a later enacted statute,
11 that is enacted before August 1, 2018, deletes or extends that date.

O