

ASSEMBLY BILL

No. 1470

**Introduced by Assembly Member Huffman
(Principal coauthor: Assembly Member Smyth)**

February 23, 2007

An act to add the heading of Article 1 (commencing with Section 2851) to, and to add and repeal Section 902 of, and Article 2 (commencing with Section 2860) of, Chapter 9 of Part 2 of Division 1 of, the Public Utilities Code, relating to solar energy, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

AB 1470, as introduced, 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, a program to incentivize the installation of 500,000 solar thermal 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 heating systems receiving ratepayer funded incentives not later than July 1, 2008. The commission would be required to establish conditions on those incentives. The bill would specify that 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 heating 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 heating technologies. The Energy Commission, in coordinating efforts with the commission, would be required to consider coupling rebates for solar heating systems with complimentary 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 money from the surcharge is deposited in the Gas Consumption Surcharge Fund and is 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 through a surcharge applied to persons consuming natural gas in the state that has been transported by an interstate pipeline, except those participating in certain existing programs for low-income ratepayers, not to exceed \$100,000,000 in its entirety. Because this bill would increase the amount of money deposited in the Gas Consumption Surcharge Fund and make the money available to the commission for the purposes of the act, it would make an appropriation. The bill would repeal these provisions on August 1, 2018.

Vote: 2/3. Appropriation: yes. Fiscal committee: yes.
State-mandated local program: no.

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

1 SECTION 1. Section 902 is added to the Public Utilities Code,
2 to read:

3 902. (a) The commission shall fund the program established
4 in the Solar Hot Water and Efficiency Act of 2007, pursuant to
5 Article 2 (commencing with Section 2860) of Chapter 9 of Part 2,
6 through the use of a surcharge applied to persons consuming natural
7 gas in this state that has been transported by an interstate pipeline.
8 This fund shall not exceed one hundred million dollars
9 (\$100,000,000).

10 (b) Funds shall be allocated for the benefit of persons paying
11 the surcharge and the promotion of solar hot water systems and
12 other technologies that reduce natural gas consumption and global
13 warming pollution.

14 (c) This section shall remain in effect until August 1, 2018, and
15 as of that date is repealed unless a later enacted statute extends or
16 repeals that date.

17 SEC. 2. The heading of Article 1 (commencing with Section
18 2851) is added to Chapter 9 of Part 2 of Division 1 of the Public
19 Utilities Code, to read:

20
21 Article 1. Solar Photovoltaic Systems
22

23 SEC. 3. Article 2 (commencing with Section 2860) is added
24 to Chapter 9 of Part 2 of Division 1 of the Public Utilities Code,
25 to read:

Article 2. Solar Thermal Systems

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2
3 2860. This article shall be known, and may be cited, as the
4 Solar Hot Water and Efficiency Act of 2007.
5 2861. As used in this article, the following terms have the
6 following meanings:
7 (a) “Energy Commission” means the State Energy Resources
8 Conservation and Development Commission.
9 (b) “kWth” means the kilowatt thermal capacity of a solar
10 heating collector consistent with the standard established by the
11 International Energy Agency’s Solar Heating and Cooling Program.
12 (c) “kWhth” means kilowatthours thermal as measured by the
13 number of kilowatts thermal generated in an hour.
14 (d) “New Solar Homes Partnership” means the 10-year program
15 encouraging solar energy systems in new home construction.
16 (e) “Solar heating system” means a solar energy device that has
17 the primary purpose of reducing demand for natural gas through
18 water heating, space heating, or other methods of reducing natural
19 gas consumption in a home, businesses, or any building receiving
20 natural gas that is subject to the surcharge established pursuant to
21 Section 902, or exempt from the surcharge pursuant to subdivision
22 (c) of Section 2863, and that meets or exceeds the eligibility criteria
23 established pursuant to Section 2864.
24 2862. The Legislature finds and declares all of the following:
25 (a) California is heavily dependent on natural gas, importing
26 more than 80 percent of the natural gas it consumes.
27 (b) Rising worldwide demand for natural gas and a shrinking
28 supply create rising and unstable prices that can harm California
29 consumers and the economy.
30 (c) Natural gas is a fossil fuel and a major source of global
31 warming pollution and the pollutants that cause air pollution,
32 including smog.
33 (d) California’s growing population and economy will put a
34 strain on energy supplies and threaten the ability of the state to
35 meet its global warming goals unless specific steps are taken to
36 reduce demand and generate energy cleanly and efficiently.
37 (e) Water heating for domestic and industrial use relies almost
38 entirely on natural gas and accounts for a significant percentage
39 of the state’s natural gas consumption.

1 (f) Solar water heating systems represent the largest untapped
2 natural gas saving potential remaining in California.

3 (g) In addition to financial and energy savings, solar heating
4 systems can help protect against future gas and electricity shortages
5 and reduce our dependence on foreign sources of energy.

6 (h) Solar heating systems can also help preserve the environment
7 and protect public health by reducing air pollution, including
8 carbon dioxide, a leading global warming gas, and nitrogen oxide,
9 a precursor to smog.

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

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

16 (k) It is the intent of the Legislature to build a mainstream
17 market for solar heating systems that directly reduces demand for
18 natural gas in homes, businesses, and government buildings.
19 Toward that end, it is the goal of the Solar Hot Water and
20 Efficiency Act of 2007 to install at least 500,000 solar heating
21 systems on homes, businesses, and government buildings
22 throughout the state by 2017, thereby lowering prices and creating
23 a self-sufficient market that will sustain itself beyond the life of
24 this program.

25 (l) It is the intent of the Legislature that the solar heating
26 incentives created by the act should be a cost-effective investment
27 by consumers of natural gas. Consumers of natural gas will recoup
28 the cost of their investment through lower prices as a result of
29 avoiding purchases of natural gas, and benefit from additional
30 system stability and pollution reduction benefits.

31 2863. (a) In order to achieve the goals of the Legislature, the
32 commission shall, not later than July 1, 2008, create a program to
33 promote the installation of 500,000 solar thermal systems in homes
34 and business throughout the state by 2017.

35 (b) The program shall be supervised or administered by the
36 commission. The commission shall coordinate with the Energy
37 Commission's New Solar Homes Partnership to achieve the goal
38 of building zero-energy homes.

39 (c) Not later than July 1, 2008, the commission shall establish
40 a surcharge pursuant to Section 902, not to exceed one hundred

1 million dollars (\$100,000,000) in its entirety. In establishing the
2 program required by this section, no moneys shall be diverted from
3 any existing programs for low-income ratepayers. Any surcharge
4 imposed to fund the program adopted and implemented pursuant
5 to this section shall be imposed upon all customers not participating
6 in the California Alternate Rates for Energy (CARE) or family
7 electric rate assistance (FERA) programs.

8 2864. (a) Not later than July 1, 2008, the commission, in
9 consultation with the Energy Commission, and interested members
10 of the public, shall establish eligibility criteria for solar heating
11 systems receiving ratepayer funded incentives. The criteria should
12 specify and include all of the following:

13 (1) Design, installation, and energy output or displacement
14 standards.

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

18 (3) Require that solar heating systems have a warranty of not
19 less than 10 years to protect against defects and undue degradation.

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

22 (5) Require that solar heating systems have meters or other
23 kWth 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 energy systems are installed in conformity
27 with the manufacturer's specifications and all applicable codes
28 and standards.

29 (b) Upon establishment of eligibility criteria pursuant to this
30 section, no ratepayer funded incentives shall be made for a solar
31 energy system that does not meet the eligibility criteria.

32 2865. (a) The commission shall establish conditions on
33 ratepayer funded incentives. The conditions shall require both of
34 the following:

35 (1) Appropriate siting and high quality installation of the solar
36 heating system based on installation guidelines that maximize the
37 performance of the system and prevent qualified systems from
38 being inefficiently or inappropriately installed. The conditions
39 shall not impact housing designs or densities presently authorized
40 by a city, county, or city and county. The goal of this paragraph

1 is to achieve efficient installation of solar heating systems and
2 promote the greatest energy production or displacement per
3 ratepayer dollar.

4 (2) Appropriate energy efficiency improvements in the new or
5 existing home or commercial structure where the solar heating
6 system is installed.

7 (b) The commission shall set rating standards for equipment,
8 components, and systems to assure reasonable performance and
9 shall develop standards that provide for compliance with the
10 minimum ratings.

11 2866. The commission shall provide not less than 10 percent
12 of the overall funds for installation of solar heating systems on
13 affordable housing projects undertaken pursuant to Section
14 50052.5, 50053, or 50199.14 of the Health and Safety Code. If
15 deemed appropriate in consultation with the California Tax Credit
16 Allocation Committee, the commission may establish a grant
17 program or a revolving loan or loan guarantee program for
18 affordable housing projects consistent with the requirements of
19 Chapter 5.3 (commencing with Section 25425) of Division 15 of
20 the Public Resources Code.

21 2867. (a) The rebates provided through this program shall
22 decline over time. They shall be structured so as to drive down the
23 cost of the solar heating technologies, and be paid out on a
24 performance based incentive basis so that incentives are earned
25 based on the actual energy savings.

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

29 (c) In coordinating with the commission, the Energy
30 Commission shall consider coupling rebates for solar heating
31 systems with complimentary energy efficiency technologies,
32 including, but not limited to, efficient hot water heating tanks and
33 tankless or on demand hot water systems that can be installed in
34 addition to the solar heating system.

35 2867.1. Not later than July 1, 2010, the commission shall report
36 to the Legislature as to the effectiveness of the program and make
37 recommendations as to any changes that should be made to the
38 program. To facilitate the understanding of how solar heating
39 devices compare with other clean energy and energy efficiency
40 technologies, all documents related to and rebates provided by this

1 program shall be measured in both kWhth and therms of natural
2 gas saved.

3 2867.2. Solar heating technologies shall not be eligible for
4 California Solar Initiative (CSI) funds, pursuant to Section 2851,
5 unless they also displace electricity, in which case only the
6 electricity displacing portion of the technology may be eligible
7 under the CSI program, as determined by the commission.

8 2867.3. This part shall remain in effect only until August 1,
9 2018, and as of that date is repealed, unless a later enacted statute,
10 that is enacted before August 1, 2018, deletes or extends that date.