

AMENDED IN ASSEMBLY MAY 31, 2016

AMENDED IN ASSEMBLY APRIL 20, 2016

AMENDED IN ASSEMBLY MARCH 17, 2016

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

ASSEMBLY BILL

No. 2460

Introduced by Assembly Member Irwin

February 19, 2016

An act to amend Sections 2861, 2863, 2864, 2865, 2866, 2867, and 2867.3 of, to amend and renumber Section 2862 of, to repeal Sections 2860, 2867.1, and 2867.2 of, and to repeal and add Section 2867.4 of, the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 2460, as amended, Irwin. Solar thermal systems.

The Solar Water Heating and Efficiency Act of 2007, until August 1, 2017, requires the Public Utilities Commission, if it determines that a solar water heating program is cost effective for ratepayers and in the public interest, to implement a program to promote the installation of 200,000 solar water heating systems in homes, businesses, and buildings or facilities of eligible customer classes receiving natural gas service throughout the state by 2017. The act establishes the *maximum* funding cap for the program, for the collective service territories of all gas corporations, at \$250,000,000. The act, until August 1, 2017, requires the governing body of each publicly owned utility providing gas service to retail end-use customers to adopt, implement, and finance a solar water heating system incentive program to encourage the installation of 200,000 solar water heating systems by 2017.

This bill would revise the program to, among other things, promote the installation of solar thermal systems throughout the state, set the *maximum* funding ~~cap~~ for the program between January 1, 2017, and July 31, ~~2027~~, 2022, at ~~\$1,000,000,000~~, \$250,000,000, reserve 50% of the total program budget for the installation of solar thermal systems in low-income residential housing or in buildings in disadvantaged communities, and extend the operation of the program through July 31, ~~2027~~, 2022. Because a violation of any order, decision, rule, direction, demand, or requirement of the commission implementing these revisions would be a crime, this bill would impose a state-mandated local program. The bill would also require the governing body of each publicly owned utility providing gas service, until August 1, ~~2027~~, 2022, to adopt, implement, and finance a solar thermal system incentive program. Because the bill would extend the obligations of a publicly owned electric utility to adopt, implement, and finance the program, this bill would impose a state-mandated local program.

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

This bill would provide that 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 2860 of the Public Utilities Code is
- 2 repealed.
- 3 SEC. 2. Section 2861 of the Public Utilities Code is amended
- 4 to read:
- 5 2861. As used in this article, the following terms have the
- 6 following meanings:
- 7 (a) “Disadvantaged community” means a community identified
- 8 by the California Environmental Protection Agency pursuant to
- 9 Section 39711 of the Health and Safety Code.
- 10 (b) “Gas customer” includes both “core” and “noncore”
- 11 customers, as those terms are used in Chapter 2.2 (commencing
- 12 with Section 328) of Part 1, that receive retail end-use gas service
- 13 within the service territory of a gas corporation.

1 (c) “kW_{th}” or “kilowatts thermal” means the unit of measure of
2 the equivalent thermal capacity of a solar thermal system that is
3 calculated by multiplying the aperture area of the solar collector
4 area of the system, expressed in square meters, by a conversion
5 factor of 0.7.

6 (d) “kWh_{th}” means kilowatthours thermal as measured by the
7 number of kilowatts thermal generated, or displaced, in an hour.

8 (e) “Low-income residential housing” means either of the
9 following:

10 (1) Residential housing financed with low-income housing tax
11 credits, tax-exempt mortgage revenue bonds, general obligation
12 bonds, or local, state, or federal loans or grants, and for which the
13 rents of the occupants who are lower income households, as defined
14 in Section 50079.5 of the Health and Safety Code, do not exceed
15 those prescribed by deed restrictions or regulatory agreements
16 pursuant to the terms of the financing or financial assistance.

17 (2) A residential complex in which at least 20 percent of the
18 total units are sold or rented to lower income households, as defined
19 in Section 50079.5 of the Health and Safety Code, and the housing
20 units targeted for lower income households are subject to a deed
21 restriction or affordability covenant with a public entity that ensures
22 that the units will be available at an affordable housing cost
23 meeting the requirements of Section 50052.5 of the Health and
24 Safety Code, or at an affordable rent meeting the requirements of
25 Section 50053 of the Health and Safety Code, for a period of not
26 less than 30 years.

27 (f) “New Solar Homes Partnership” means the 10-year program,
28 administered by the Energy Commission, encouraging solar energy
29 systems in new home construction.

30 (g) “Solar heating collector” means a device that is used to
31 collect or capture heat from the sun and that is generally, but need
32 not be, located on a roof.

33 (h) “Solar thermal system” means a solar energy device that
34 has the primary purpose of reducing demand for natural gas or
35 electricity through water heating, space heating or cooling, or other
36 methods of capturing heat energy from the sun to reduce natural
37 gas or electricity consumption in a home, business, or any building
38 or facility receiving natural gas that is subject to the surcharge
39 established pursuant to paragraph (2) of subdivision (b) of Section
40 2863, or exempt from the surcharge pursuant to paragraph (4) of

1 subdivision (b) of Section 2863, and that meets or exceeds the
2 eligibility criteria established pursuant to Section 2864. “Solar
3 thermal systems” include multifamily residential, industrial,
4 governmental, educational, and nonprofit solar pool heating
5 systems, but do not include single-family residential solar pool
6 heating systems.

7 SEC. 3. Section 2862 of the Public Utilities Code is amended
8 and renumbered to read:

9 2860. (a) *The* Legislature finds and declares all of the
10 following:

11 (1) California is heavily dependent on natural gas.

12 (2) The storage and delivery of natural gas relies on aging
13 infrastructure that is prone to leaks that can damage the
14 environment and imperil public health.

15 (3) Natural gas is a fossil fuel and a major source of global
16 warming pollution and the pollutants that cause air pollution,
17 including smog.

18 (4) California’s growing population and economy will put a
19 strain on energy supplies and threaten the ability of the state to
20 meet its global warming goals unless specific steps are taken to
21 reduce demand and generate energy cleanly and efficiently.

22 (5) Water heating for domestic and industrial use relies almost
23 entirely on natural gas and accounts for a significant percentage
24 of the state’s natural gas consumption.

25 (6) Solar thermal systems represent the major untapped natural
26 gas saving potential in California.

27 (7) In addition to financial and energy savings, solar water
28 heating systems can help protect against future gas and electricity
29 shortages and reduce our dependence on foreign sources of energy.

30 (8) Solar thermal systems can also help preserve the environment
31 and protect public health by reducing air pollution, including
32 carbon dioxide, a leading global warming gas, and nitrogen oxide,
33 a precursor to smog.

34 (9) Growing demand for these technologies will create jobs in
35 California as well as promote greater energy independence, protect
36 consumers from rising energy costs, and result in cleaner air.

37 (10) Installing solar thermal systems in disadvantaged
38 communities can provide local economic benefits while advancing
39 the state’s clean energy goals and policies to reduce the emissions
40 of greenhouse gases.

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

4 (b) It is the intent of the Legislature to build a mainstream
5 market for solar thermal systems that directly reduces demand for
6 natural gas in homes, businesses, schools, industrial and
7 government buildings, and buildings occupied by nonprofit
8 organizations.

9 (c) It is the intent of the Legislature that the solar thermal system
10 incentives created by this article should lead to cost-effective
11 investments by gas customers. Gas customers will recoup the cost
12 of these investments through lower energy bills as a result of
13 avoiding purchases of natural gas.

14 SEC. 4. Section 2863 of the Public Utilities Code is amended
15 to read:

16 2863. (a) By July 31, 2017, the commission shall do all of the
17 following:

18 (1) Implement changes to the program as authorized pursuant
19 to this section as it read on December 31, 2016, applicable to the
20 service territories of a gas corporation to promote the installation
21 of solar thermal systems in homes, businesses, and buildings or
22 facilities of eligible customer classes receiving natural gas service
23 throughout the state. Eligible customer classes shall include
24 single-family and multifamily residential, commercial, industrial,
25 governmental, nonprofit, and primary, secondary, and
26 postsecondary educational customers. The commission shall
27 implement program changes in phases, if necessary, to enable
28 seamless continuation of the availability of rebates as of January
29 1, 2017.

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

33 (3) The commission shall coordinate the program with the
34 Energy Commission's programs and initiatives, including, but not
35 limited to, the New Solar Homes Partnership, to achieve the goal
36 of building zero-energy homes.

37 (b) (1) The commission shall fund the program through the use
38 of a surcharge applied to gas customers based upon the amount of
39 natural gas consumed. The surcharge shall be in addition to any

1 other charges for natural gas sold or transported for consumption
2 in this state.

3 (2) Funding for the program established by this article shall not,
4 for the collective service territories of all gas corporations, exceed
5 ~~one billion dollars (\$1,000,000,000)~~ *two hundred fifty million*
6 *dollars (\$250,000,000)* over the course of the period from January
7 1, 2017, to July 31, ~~2027~~, 2022, inclusive.

8 (3) Fifty percent of the total program budget shall be reserved
9 for the installation of solar thermal systems in low-income
10 residential housing or in buildings in disadvantaged communities.
11 The commission may revise the percentage if the budget for other
12 types of customers becomes depleted.

13 (4) Ten percent of the total program budget shall be reserved
14 for the installation of solar thermal systems for industrial
15 applications. The commisison may revise the percentage if the
16 budget for other types of customers becomes depleted.

17 (5) The commission shall annually establish a surcharge rate
18 for each class of gas customers. Any gas customer participating
19 in the California Alternate Rates for Energy (CARE) or Family
20 Electric Rate Assistance (FERA) programs shall be exempt from
21 paying any surcharge imposed to fund the program designed and
22 implemented pursuant to this article.

23 (6) Any surcharge imposed to fund the program designed and
24 implemented pursuant to this article shall not be imposed upon the
25 portion of any gas customer's procurement of natural gas that is
26 used or employed for a purpose that Section 896 excludes from
27 being categorized as the consumption of natural gas.

28 (7) The gas corporation or other person or entity providing
29 revenue cycle services, as defined in Section 328.1, shall be
30 responsible for collecting the surcharge.

31 (c) Funds shall be allocated in the form of customer rebates to
32 promote utilization of solar thermal systems.

33 (1) On and after January 1, 2017, the rebate amount shall be
34 consistent with the amount the commission established for the
35 calendar year 2016 until revised by the commission pursuant to
36 paragraph (2).

37 (2) Beginning in 2017, and every two years thereafter, the
38 commission shall consider revisions to the rebate amount, taking
39 into account the cost of installing solar thermal systems and the
40 price of natural gas to end-use customers.

1 (3) The commission shall ensure that a cap on the maximum
2 rebate amount does not unreasonably impair the ability of industrial
3 customers to participate in the program.

4 (d) In designing and implementing the program required by this
5 article, no moneys shall be diverted from any existing programs
6 for low-income ratepayers or cost-effective energy efficiency
7 programs.

8 SEC. 5. Section 2864 of the Public Utilities Code is amended
9 to read:

10 2864. (a) The commission, in consultation with the Energy
11 Commission and interested members of the public, shall establish
12 eligibility criteria for solar thermal systems receiving gas customer
13 funded incentives pursuant to this article. The criteria should
14 specify and include all of the following:

15 (1) Design, installation, and energy output or displacement
16 standards. To be eligible for rebate funding, a residential solar
17 thermal system shall be certified by an accredited listing agency
18 in accordance with standards adopted by the commission. Solar
19 collectors used in systems for multifamily residential, commercial,
20 government, nonprofit, educational, or industrial applications shall
21 be certified by an accredited listing agency in accordance with
22 standards adopted by the commission. Energy output of collectors
23 and systems shall be determined in accordance with procedures
24 set forth by the listing agency, and shall be based on testing results
25 from accredited testing laboratories.

26 (2) A requirement that solar thermal system components are
27 new and unused, and have not previously been placed in service
28 in any other location or for any other application.

29 (3) A requirement that solar thermal collectors have a warranty
30 of not less than 10 years to protect against defects and undue
31 degradation.

32 (4) A requirement that solar thermal systems are in buildings
33 or facilities connected to a natural gas utility's distribution system
34 within the state.

35 (5) A requirement that solar thermal systems have meters or
36 other kWh_{th} measuring devices in place to monitor and measure
37 the system's performance and the quantity of energy generated or
38 displaced by the system. The cost of monitoring the system shall
39 not exceed 2 percent of the system cost.

(6) A requirement that solar thermal systems are installed in conformity with the manufacturer's specifications and all applicable codes and standards.

(b) Gas customer funded incentives shall not be made for a solar thermal system that does not meet the eligibility criteria.

(c) The commission may adopt consensus solar standards applicable to products or systems as developed by accredited standards developers.

SEC. 6. Section 2865 of the Public Utilities Code is amended to read:

2865. (a) The commission shall establish conditions on gas customer funded incentives pursuant to this article. The conditions shall require both of the following:

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

(2) Appropriate energy efficiency improvements in the new or existing home or facility where the solar thermal system is installed.

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

SEC. 7. Section 2866 of the Public Utilities Code is amended to read:

2866. (a) The commission may establish a grant program or a revolving loan or loan guarantee program for low-income residential housing consistent with the requirements of Chapter 5.3 (commencing with Section 25425) of Division 15 of the Public Resources Code. Notwithstanding Section 2867.4, all loans outstanding as of August 1, ~~2027~~, 2022, shall continue to be repaid in a manner that is consistent with the terms and conditions of the program adopted and implemented by the commission pursuant to this subdivision, until repaid in full.

1 (b) The commission may extend eligibility for funding pursuant
2 to this section to include residential housing occupied by ratepayers
3 participating in a commission approved and supervised gas
4 corporation Low-Income Energy Efficiency (LIEE) program and
5 who either:

6 (1) Occupy a single-family home.

7 (2) Occupy at least 50 percent of all units in a multifamily
8 dwelling structure.

9 (c) The commission shall ensure that lower income households,
10 as defined in Section 50079.5 of the Health and Safety Code, and,
11 if the commission expands the program pursuant to subdivision
12 (b), ratepayers participating in a LIEE program, that receive gas
13 service at residential housing with a solar thermal system receiving
14 incentives pursuant to subdivision (a) benefit from the installation
15 of the solar thermal systems through reduced or lowered energy
16 costs.

17 (d) The commission shall do all of the following to implement
18 the requirements of this section:

19 (1) Maximize incentives to properties that are committed to
20 continuously serving the needs of lower income households, as
21 defined in Section 50079.5 of the Health and Safety Code, and, if
22 the commission expands the program pursuant to subdivision (b),
23 ratepayers participating in a LIEE program.

24 (2) Establish conditions on the installation of solar thermal
25 systems that ensure properties on which solar thermal systems are
26 installed under subdivision (a) remain low-income residential
27 properties for at least 10 years from the time of installation,
28 including property ownership restrictions and income rental
29 protections, and appropriate enforcement of these conditions.

30 SEC. 8. Section 2867 of the Public Utilities Code is amended
31 to read:

32 2867. (a) Consistent with subdivision (c) of Section 2863, the
33 commission shall consider reductions over time in rebates provided
34 through the program. The rebate shall be structured so as to drive
35 down the cost of the solar thermal technologies, and be paid out
36 on a performance-based incentive basis so that incentives are
37 earned based on the actual energy savings, or on predicted energy
38 savings as established by the commission.

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

4 (c) The commission shall consider the impact of rebates for
5 solar thermal systems pursuant to this article on existing incentive
6 programs for energy efficiency technology.

7 (d) In coordination with the commission, the Energy
8 Commission shall consider, when appropriate, coupling rebates
9 for solar thermal systems with complementary energy efficiency
10 technologies, including, but not limited to, efficient hot water
11 heating tanks and tankless or on demand hot water systems that
12 can be installed in addition to the solar thermal system.

13 SEC. 9. Section 2867.1 of the Public Utilities Code is repealed.

14 SEC. 10. Section 2867.2 of the Public Utilities Code is
15 repealed.

16 SEC. 11. Section 2867.3 of the Public Utilities Code is
17 amended to read:

18 2867.3. The governing body of each publicly owned utility
19 providing gas service to retail end-use gas customers shall, after
20 a public proceeding, adopt, implement, and finance a solar thermal
21 system incentive program that does all the following:

22 (a) Ensures that any solar thermal system receiving monetary
23 incentives complies with eligibility criteria adopted by the
24 governing body. The eligibility criteria shall include those elements
25 contained in paragraphs (1) to (6), inclusive, of subdivision (a) of
26 Section 2864.

27 (b) Includes minimum ratings and standards for equipment,
28 components, and systems to ensure reasonable performance and
29 compliance with the minimum ratings and standards.

30 (c) Includes an element that addresses the installation of solar
31 thermal systems on low-income residential housing. If deemed
32 appropriate in consultation with the California Tax Credit
33 Allocation Committee, the governing board may establish a grant
34 program or a revolving loan or loan guarantee program for
35 low-income residential housing consistent with the requirements
36 of Chapter 5.3 (commencing with Section 25425) of Division 15
37 of the Public Resources Code.

38 SEC. 12. Section 2867.4 of the Public Utilities Code is
39 repealed.

1 SEC. 13. Section 2867.4 is added to the Public Utilities Code,
2 to read:

3 2867.4. This article shall become inoperative on August 1,
4 2027, 2022, and, as of January 1, ~~2028~~, 2023, is repealed, unless
5 a later enacted statute, that becomes operative on or before January
6 1, ~~2028~~, 2023, deletes or extends the dates on which it becomes
7 inoperative and is repealed.

8 SEC. 14. No reimbursement is required by this act pursuant to
9 Section 6 of Article XIII B of the California Constitution because
10 a local agency or school district has the authority to levy service
11 charges, fees, or assessments sufficient to pay for the program or
12 level of service mandated by this act or because costs that may be
13 incurred by a local agency or school district will be incurred
14 because this act creates a new crime or infraction, eliminates a
15 crime or infraction, or changes the penalty for a crime or infraction,
16 within the meaning of Section 17556 of the Government Code, or
17 changes the definition of a crime within the meaning of Section 6
18 of Article XIII B of the California Constitution.