

AMENDED IN SENATE JUNE 14, 2016

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 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 for the program between January 1, 2017, and July 31, 2022, at \$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, 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, 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

1 with Section 328) of Part 1, that receive retail end-use gas service
2 within the service territory of a gas corporation.

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

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

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

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

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

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

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

36 (h) “Solar thermal system” means a solar energy device that
37 has the primary purpose of reducing demand for natural gas or
38 electricity through water heating, space heating or cooling, or other
39 methods of capturing heat energy from the sun to reduce natural
40 gas or electricity consumption in a home, business, or any building

1 or facility receiving natural gas that is subject to the surcharge
2 established pursuant to paragraph (2) of subdivision (b) of Section
3 2863, or exempt from the surcharge pursuant to paragraph (4) of
4 subdivision (b) of Section 2863, and that meets or exceeds the
5 eligibility criteria established pursuant to Section 2864. “Solar
6 thermal systems” include multifamily residential, industrial,
7 governmental, educational, and nonprofit solar pool heating
8 systems, but do not include single-family residential solar pool
9 heating systems.

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

12 2860. (a) The Legislature finds and declares all of the
13 following:

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

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

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

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

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

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

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

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

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

1 (10) Installing solar thermal systems in disadvantaged
2 communities can provide local economic benefits while advancing
3 the state's clean energy goals and policies to reduce the emissions
4 of greenhouse gases.

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

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

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

18 SEC. 4. Section 2863 of the Public Utilities Code is amended
19 to read:

20 2863. (a) By July 31, 2017, the commission shall do all of the
21 following:

22 (1) Implement changes to the program as authorized pursuant
23 to this section as it read on December 31, 2016, applicable to the
24 service territories of a gas corporation to promote the installation
25 of solar thermal systems in homes, businesses, and buildings or
26 facilities of eligible customer classes receiving natural gas service
27 throughout the state. Eligible customer classes shall include
28 single-family and multifamily residential, commercial, industrial,
29 governmental, nonprofit, and primary, secondary, and
30 postsecondary educational customers. The commission shall
31 implement program changes in phases, if necessary, to enable
32 seamless continuation of the availability of rebates as of January
33 1, 2017.

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

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

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

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

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

15 (4) Ten percent of the total program budget shall be reserved
16 for the installation of solar thermal systems for industrial
17 applications. The ~~commission~~ *commission* may revise the
18 percentage if the budget for other types of customers becomes
19 depleted.

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

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

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

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

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

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

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

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

12 SEC. 5. Section 2864 of the Public Utilities Code is amended
13 to read:

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

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

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

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

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

39 (5) (A) A requirement that solar thermal systems have meters
40 or other kWh_{th} measuring devices in place to monitor and measure

1 the system's performance and the quantity of energy generated or
2 displaced by the system. ~~The cost of monitoring the system shall~~
3 ~~not exceed 2 percent of the system cost.~~

4 *(B) The commission shall exempt from this requirement system*
5 *types for which the cost of monitoring a system is likely to exceed*
6 *2 percent of the system cost. After a public stakeholder process,*
7 *the commission may adjust this percentage to ensure reasonable*
8 *balance between customer cost and value received, taking into*
9 *account factors including, but not limited to, customer class, system*
10 *type, system size, or changes in the market.*

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

14 *(7) A requirement that, when the property is not owner-occupied,*
15 *the tenant shall not contract for the installation of a solar thermal*
16 *system. The tenant may request that the owner participate in such*
17 *a program.*

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

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

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

25 2865. (a) The commission shall establish conditions on gas
26 customer funded incentives pursuant to this article. The conditions
27 shall require both of the following:

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

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

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

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

7 2866. (a) The commission may establish a grant program or
8 a revolving loan or loan guarantee program for low-income
9 residential housing consistent with the requirements of Chapter
10 5.3 (commencing with Section 25425) of Division 15 of the Public
11 Resources Code. Notwithstanding Section 2867.4, all loans
12 outstanding as of August 1, 2022, shall continue to be repaid in a
13 manner that is consistent with the terms and conditions of the
14 program adopted and implemented by the commission pursuant
15 to this subdivision, until repaid in full.

16 (b) The commission may extend eligibility for funding pursuant
17 to this section *and paragraph (3) of subdivision (b) of Section 2863*
18 to include residential housing occupied by ratepayers participating
19 in a commission approved and supervised gas corporation
20 Low-Income Energy Efficiency (LIEE) program and who either:

- 21 (1) Occupy a single-family home.
22 (2) Occupy at least 50 percent of all units in a multifamily
23 dwelling structure.

24 (c) The commission shall ensure that lower income households,
25 as defined in Section 50079.5 of the Health and Safety Code, and,
26 if the commission expands the program pursuant to subdivision
27 (b), ratepayers participating in a LIEE program, that receive gas
28 service at residential housing with a solar thermal system receiving
29 incentives pursuant to subdivision (a) benefit from the installation
30 of the solar thermal systems through reduced or lowered energy
31 costs.

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

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

39 (2) Establish conditions on the installation of solar thermal
40 systems that ensure properties on which solar thermal systems are

1 installed under subdivision (a) remain low-income residential
2 properties for at least 10 years from the time of installation,
3 including property ownership restrictions and income rental
4 protections, and appropriate enforcement of these conditions.

5 SEC. 8. Section 2867 of the Public Utilities Code is amended
6 to read:

7 2867. (a) Consistent with subdivision (c) of Section 2863, the
8 commission shall consider reductions over time in rebates provided
9 through the program. The rebate shall be structured so as to drive
10 down the cost of the solar thermal technologies, and be paid out
11 on a performance-based incentive basis so that incentives are
12 earned based on the actual energy savings, or on predicted energy
13 savings as established by the commission.

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

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

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

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

27 SEC. 10. Section 2867.2 of the Public Utilities Code is
28 repealed.

29 SEC. 11. Section 2867.3 of the Public Utilities Code is
30 amended to read:

31 2867.3. The governing body of each publicly owned utility
32 providing gas service to retail end-use gas customers shall, after
33 a public proceeding, adopt, implement, and finance a solar thermal
34 system incentive program that does all the following:

35 (a) Ensures that any solar thermal system receiving monetary
36 incentives complies with eligibility criteria adopted by the
37 governing body. The eligibility criteria shall include those elements
38 contained in paragraphs (1) to (6), inclusive, of subdivision (a) of
39 Section 2864.

1 (b) Includes minimum ratings and standards for equipment,
2 components, and systems to ensure reasonable performance and
3 compliance with the minimum ratings and standards.

4 (c) Includes an element that addresses the installation of solar
5 thermal systems on low-income residential housing. If deemed
6 appropriate in consultation with the California Tax Credit
7 Allocation Committee, the governing board may establish a grant
8 program or a revolving loan or loan guarantee program for
9 low-income residential housing consistent with the requirements
10 of Chapter 5.3 (commencing with Section 25425) of Division 15
11 of the Public Resources Code.

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

14 SEC. 13. Section 2867.4 is added to the Public Utilities Code,
15 to read:

16 2867.4. This article shall become inoperative on August 1,
17 2022, and, as of January 1, 2023, is repealed, unless a later enacted
18 statute, that becomes operative on or before January 1, 2023,
19 deletes or extends the dates on which it becomes inoperative and
20 is repealed.

21 SEC. 14. No reimbursement is required by this act pursuant to
22 Section 6 of Article XIII B of the California Constitution because
23 a local agency or school district has the authority to levy service
24 charges, fees, or assessments sufficient to pay for the program or
25 level of service mandated by this act or because costs that may be
26 incurred by a local agency or school district will be incurred
27 because this act creates a new crime or infraction, eliminates a
28 crime or infraction, or changes the penalty for a crime or infraction,
29 within the meaning of Section 17556 of the Government Code, or
30 changes the definition of a crime within the meaning of Section 6
31 of Article XIII B of the California Constitution.