

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 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-~~water~~ *thermal* systems throughout the state, set

the funding cap for the program between January 1, 2017, and July 31, 2027, at \$1,000,000,000, reserve 50% of the total program budget for the installation of solar-~~water heating~~ *thermal* systems in low-income residential housing or in buildings in disadvantaged communities, and extend the operation of the program through July 31, 2027. 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, to adopt, implement, and finance a solar-~~water heating~~ *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.
- 14 (c) “kW_{th}” or “kilowatts thermal” means the unit of measure of
- 15 the equivalent thermal capacity of a solar-~~water heating~~ *thermal*
- 16 system that is calculated by multiplying the aperture area of the

1 solar collector area of the system, expressed in square meters, by
2 a conversion factor of 0.7.

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

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

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

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

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

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

30 (h) “~~Solar-water-heating~~ *solar thermal* system” means a solar energy
31 device that has the primary purpose of reducing demand for natural
32 gas *or electricity* through water heating, space-heating, *heating or*
33 *cooling*, or other methods of capturing *heat* energy from the sun
34 to reduce natural gas *or electricity* consumption in a home,
35 business, or any building or facility receiving natural gas that is
36 subject to the surcharge established pursuant to *paragraph (2) of*
37 *subdivision (b) of Section 2863*, or exempt from the surcharge
38 pursuant to *paragraph (4) of subdivision-(e) (b) of Section 2863*,
39 and that meets or exceeds the eligibility criteria established
40 pursuant to Section 2864. “~~Solar-water-heating~~ *solar thermal* systems”

1 include multifamily residential, *industrial*, governmental,
2 educational, and nonprofit solar pool heating systems, but do not
3 include single-family residential solar pool heating systems.

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

6 2860. (a) Legislature finds and declares all of the following:

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

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

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

14 (4) California's growing population and economy will put a
15 strain on energy supplies and threaten the ability of the state to
16 meet its global warming goals unless specific steps are taken to
17 reduce demand and generate energy cleanly and efficiently.

18 (5) Water heating for domestic and industrial use relies almost
19 entirely on natural gas and accounts for a significant percentage
20 of the state's natural gas consumption.

21 (6) ~~Solar-water-heating~~ *thermal* systems represent the major
22 untapped natural gas saving potential in California.

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

26 (8) ~~Solar-water-heating~~ *thermal* systems can also help preserve
27 the environment and protect public health by reducing air pollution,
28 including carbon dioxide, a leading global warming gas, and
29 nitrogen oxide, a precursor to smog.

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

33 (10) Installing ~~solar-water-heating~~ *thermal* systems in
34 disadvantaged communities can provide local economic benefits
35 while advancing the state's clean energy goals and policies to
36 reduce the emissions of greenhouse gases.

37 (11) It is in the interest of the State of California to promote
38 ~~solar-water-heating~~ *thermal* systems and other technologies that
39 directly reduce demand for natural gas in homes and businesses.

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

6 (c) It is the intent of the Legislature that the solar ~~water heating~~
7 ~~thermal~~ system incentives created by this article should ~~be a lead~~
8 ~~to cost-effective investment~~ *investments* by gas customers. Gas
9 customers will recoup the cost of ~~their investment~~ *these investments*
10 through lower energy bills as a result of avoiding purchases of
11 natural gas.

12 SEC. 4. Section 2863 of the Public Utilities Code is amended
13 to read:

14 2863. (a) By July 31, 2017, the commission shall do all of the
15 following:

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

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

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

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

(2) Funding for the program established by this article shall not, for the collective service territories of all gas corporations, exceed one billion dollars (\$1,000,000,000) over the course of the period from January 1, 2017, to July 31, 2027, inclusive.

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

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

~~(4)~~
(5) The commission shall annually establish a surcharge rate for each class of gas customers. Any gas customer participating in the California Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) programs shall be exempt from paying any surcharge imposed to fund the program designed and implemented pursuant to this article.

~~(5)~~
(6) Any surcharge imposed to fund the program designed and implemented pursuant to this article shall not be imposed upon the portion of any gas customer's procurement of natural gas that is used or employed for a purpose that Section 896 excludes from being categorized as the consumption of natural gas.

~~(6)~~
(7) The gas corporation or other person or entity providing revenue cycle services, as defined in Section 328.1, shall be responsible for collecting the surcharge.

(c) Funds shall be allocated in the form of customer rebates to promote utilization of solar ~~water-heating~~ *thermal* systems.

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

(2) Beginning in 2017, and every two years thereafter, the commission shall consider revisions to the rebate amount, taking into account the cost of installing solar ~~water-heating~~ *thermal* systems and the 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-~~water-heating~~ *thermal* systems receiving
13 gas customer funded incentives pursuant to this article. The criteria
14 should 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 ~~water-heating~~ *thermal* system shall be certified by an accredited
18 listing agency in accordance with standards adopted by the
19 commission. Solar collectors used in systems for multifamily
20 residential, commercial, government, nonprofit, educational, or
21 industrial-~~water-heating~~ *applications* shall be certified by an
22 accredited listing agency in accordance with standards adopted by
23 the commission. Energy output of collectors and systems shall be
24 determined in accordance with procedures set forth by the listing
25 agency, and shall be based on testing results from accredited testing
26 laboratories.

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

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

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

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

1 (6) A requirement that solar-~~water-heating~~ *thermal* systems are
2 installed in conformity with the manufacturer's specifications and
3 all applicable codes and standards.

4 (b) Gas customer funded incentives shall not be made for a solar
5 ~~water-heating~~ *thermal* system that does not meet the eligibility
6 criteria.

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

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

12 2865. (a) The commission shall establish conditions on gas
13 customer funded incentives pursuant to this article. The conditions
14 shall require both of the following:

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

24 (2) Appropriate energy efficiency improvements in the new or
25 existing home or facility where the solar-~~water-heating~~ *thermal*
26 system is installed.

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

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

33 2866. (a) The commission may establish a grant program or
34 a revolving loan or loan guarantee program for low-income
35 residential housing consistent with the requirements of Chapter
36 5.3 (commencing with Section 25425) of Division 15 of the Public
37 Resources Code. Notwithstanding Section 2867.4, all loans
38 outstanding as of August 1, 2027, shall continue to be repaid in a
39 manner that is consistent with the terms and conditions of the

1 program adopted and implemented by the commission pursuant
2 to this subdivision, until repaid in full.

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

8 (1) Occupy a single-family home.

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

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

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

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

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

33 SEC. 8. Section 2867 of the Public Utilities Code is amended
34 to read:

35 2867. (a) Consistent with subdivision (c) of Section 2863, the
36 commission shall consider reductions over time in rebates provided
37 through the program. The rebate shall be structured so as to drive
38 down the cost of the solar ~~water heating~~ *thermal* technologies, and
39 be paid out on a performance-based incentive basis so that

1 incentives are earned based on the actual energy savings, or on
2 predicted energy savings as established by the commission.

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

6 (c) The commission shall consider the impact of rebates for
7 solar-~~water-heating~~ *thermal* systems pursuant to this article on
8 existing incentive programs for energy efficiency technology.

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

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

17 SEC. 10. Section 2867.2 of the Public Utilities Code is
18 repealed.

19 SEC. 11. Section 2867.3 of the Public Utilities Code is
20 amended to read:

21 2867.3. The governing body of each publicly owned utility
22 providing gas service to retail end-use gas customers shall, after
23 a public proceeding, adopt, implement, and finance a solar-~~water~~
24 ~~heating~~ *thermal* system incentive program that does all the
25 following:

26 (a) Ensures that any solar-~~water-heating~~ *thermal* system
27 receiving monetary incentives complies with eligibility criteria
28 adopted by the governing body. The eligibility criteria shall include
29 those elements contained in paragraphs (1) to (6), inclusive, of
30 subdivision (a) of Section 2864.

31 (b) Includes minimum ratings and standards for equipment,
32 components, and systems to ensure reasonable performance and
33 compliance with the minimum ratings and standards.

34 (c) Includes an element that addresses the installation of solar
35 ~~water-heating~~ *thermal* systems on low-income residential housing.
36 If deemed appropriate in consultation with the California Tax
37 Credit Allocation Committee, the governing board may establish
38 a grant program or a revolving loan or loan guarantee program for
39 low-income residential housing consistent with the requirements

1 of Chapter 5.3 (commencing with Section 25425) of Division 15
2 of the Public Resources Code.

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

5 SEC. 13. Section 2867.4 is added to the Public Utilities Code,
6 to read:

7 2867.4. This article shall become inoperative on August 1,
8 2027, and, as of January 1, 2028, is repealed, unless a later enacted
9 statute, that becomes operative on or before January 1, 2028,
10 deletes or extends the dates on which it becomes inoperative and
11 is repealed.

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