

AMENDED IN ASSEMBLY JUNE 2, 2009

AMENDED IN ASSEMBLY APRIL 14, 2009

CALIFORNIA LEGISLATURE—2009—10 REGULAR SESSION

ASSEMBLY BILL

No. 1373

Introduced by Assembly Member Skinner

February 27, 2009

An act to add Chapter 11.1 (commencing with Section 25970) to Division 15 of the Public Resources Code, relating to global warming.

LEGISLATIVE COUNSEL'S DIGEST

AB 1373, as amended, Skinner. Global warming potential (GWP): refrigerants.

Existing law requires the State Energy Resources Conservation and Development Commission to adopt a regulation prescribing standards for minimum levels of operating efficiency to promote the use of energy and water efficient appliances. The commission is required to prescribe building design and construction; and energy and water conservation standards for residential and nonresidential buildings (building standards).

This bill would enact the California Refrigeration and Air-Conditioning Innovation Review Act of 2009 and would require the commission by ~~December 1, 2011, as a part of the revision of the buildings standards in 2011 and~~, using existing staff and funds, to develop and to conduct, in consultation with the State Air Resources Board, a study containing specified elements to assess the potential to ~~dramatically reduce~~ *optimize the efficiency of stationary cooling technology while significantly reducing* the use and emissions of high-global warming potential (GWP) compounds, as defined, in the

stationary refrigeration and air-conditioning industry. The bill would require the commission, on or before January 1, 2012, to submit to the Legislature and to post on its Internet Web site the findings and results of the study. ~~The bill would authorize the commission to use funds, to the extent they are available, to develop programs encouraging the installation of reduced high-GWP charge systems and dedicated low-GWP systems for stationary refrigeration and air-conditioning units.~~ The bill would authorize the board to use certain fees, to the extent they are available, to develop *various programs and projects* encouraging the installation of reduced high-GWP charge systems and dedicated low-GWP systems for stationary refrigeration and air-conditioning units, and programs to reduce or prevent the emissions of high-GWP compounds.

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 Legislature finds and declares all of the
- 2 following:
- 3 (a) Global warming caused by emissions of greenhouse gases
- 4 continues to pose a serious threat to the economic well-being,
- 5 public health, natural resources, and environment of California.
- 6 (b) Due to their nature, gases that possess a high global warming
- 7 potential (GWP) value affect climate change several orders of
- 8 magnitude more than carbon dioxide.
- 9 (c) ~~While~~ *Since* high-GWP gases are used in a variety of
- 10 applications *and energy systems* such as ~~in~~ refrigeration,
- 11 air-conditioning, and food and medicine preservation, stationary
- 12 refrigeration and air-conditioning systems are projected to represent
- 13 the single largest source of high-GWP gas emissions in California
- 14 ~~in~~ *by* 2020, an amount roughly equivalent to 30 million metric tons
- 15 of carbon dioxide equivalents.
- 16 (d) Although alternative technologies with significantly
- 17 decreased refrigerant charges and lower GWP value gases do exist
- 18 for stationary refrigeration and air-conditioning purposes,
- 19 widespread use has not occurred either in California or nationally.
- 20 (e) Some foreign governments have urged the ~~phase-out~~
- 21 *phaseout* of the use of high-GWP gases in refrigeration and
- 22 air-conditioning units.

1 (f) Even though dramatically *improving the efficiency of*
2 *stationary refrigeration and air-conditioning units and reducing*
3 *the use of high-GWP compounds from stationary refrigeration and*
4 *air-conditioning units in California could provide significant energy*
5 *use and emissions reductions, detailed consideration of potential*
6 *regulatory approaches, safety, technology applicability and*
7 *availability, energy efficient tradeoffs, expected economic impact,*
8 *and possible incentive programs is are valuable to ensure the state's*
9 *goals are aligned.*

10 (g) While it is within the existing authority of the State Energy
11 Resources Conservation and Development Commission to set
12 appliance and building standards *on energy systems and* for energy
13 use, it is also within the commission's authority to consider *the*
14 *environmental impacts of energy systems and materials integral*
15 *to those systems, including, but not limited to, impacts on global*
16 *warming.*

17 (h) *In addition to having authority to conduct research in*
18 *furtherance of establishing new standards and regulations, the*
19 *State Energy Resources Conservation and Development*
20 *Commission also has the authority within the Public Interest*
21 *Energy Research, Demonstration, and Development Program*
22 *(Chapter 7.1 (commencing with Section 25620) of Division 15 of*
23 *the Public Resources Code) to conduct research on energy intensity*
24 *and efficiency of appliances and energy systems in California.*

25 ~~(h) While it~~

26 (i) *It is within the State Air Resources Board's authority to*
27 *establish regulations to reduce greenhouse gases that reduce*
28 *emissions of greenhouse gases to the atmosphere, including*
29 *regulations to reduce or prevent emissions from both new and*
30 *in-use stationary refrigeration and air-conditioning equipment.*
31 *In furtherance of this authority, an in-depth assessment of the*
32 *statewide regulatory options, and potential impacts of those options,*
33 *to dramatically reduce emissions of high-GWP gases would assist*
34 *the board's effort to adopt a maximum technologically feasible*
35 *and cost-effective approach. high-GWP gases is underway pursuant*
36 *to the mandates of the California Global Warming Solutions Act*
37 *of 2006 (Division 25.5 (commencing with Section 38500) of the*
38 *Health and Safety Code). Using this authority, the State Air*
39 *Resources Board is expected to address each of the significant*
40 *high-GWP applications, including refrigerants, in specific*

1 *regulatory programs that are scheduled for development and*
2 *adoption.*

3 (j) *An analysis that builds from the knowledge and regulatory*
4 *initiatives being developed by the State Air Resources Board and*
5 *leverages the appliance and building standards knowledge of the*
6 *State Energy Resources Conservation and Development*
7 *Commission and its funding mechanisms could ensure that each*
8 *of the agencies, pursuant to its separate authority, works toward*
9 *a more fully integrated long-term approach to the challenge of*
10 *ensuring that the state continues to benefit from safe refrigeration*
11 *and air-conditioning systems, but with minimal net impact on the*
12 *environment.*

13 SEC. 2. Chapter 11.1 (commencing with Section 25970) is
14 added to Division 15 of the Public Resources Code, to read:

15
16 CHAPTER 11.1. REFRIGERATION AND ~~AIR-CONDITIONING~~
17 *AIR-CONDITIONING*
18

19 25970. This chapter shall be known and may be cited as the
20 California Refrigeration and Air-Conditioning Innovation Review
21 Act of 2009.

22 25970.5. (a) For the purposes of this chapter the following
23 terms have the following meanings:

24 (1) “Dedicated low-GWP system” means stationary refrigeration
25 and air-conditioning equipment containing ~~zero-GWP~~ *zero*
26 *high-GWP* gases.

27 (2) “High-GWP” means a global warming potential that is
28 greater than 150 carbon dioxide equivalents.

29 (3) “Low-GWP” means a global warming potential that is less
30 than or equal to 150 carbon dioxide equivalents.

31 (4) “Reduced high-GWP charge system” means stationary
32 refrigeration and air-conditioning equipment with a gas charge ~~at~~
33 ~~least 40 percent~~ *volume* below the business as usual charge rate
34 for equipment of a ~~particular~~ *similar* size, use, and function.

35 (b) On or before December 1, 2011, *using the information and*
36 *experience developed* as part of the revisions of the regulations
37 prescribed pursuant to Section 25402 in 2011 *and the research*
38 *coordinated by the Public Interest Energy Research,*
39 *Demonstration, and Development Program (Chapter 7.1*
40 *(commencing with Section 25620)),* the commission shall, to the

1 extent allowable utilizing existing staff and funding, develop and
2 conduct a study to assess the potential to ~~dramatically reduce~~
3 *optimize the efficiency of stationary cooling technology while*
4 *significantly reducing* the use and emissions of high-GWP
5 compounds in the stationary refrigeration and air-conditioning
6 industry in California. The study shall include, but is not limited
7 to, all of the following:

8 (1) An analysis of the ~~nexus between energy efficiency and~~
9 ~~direct greenhouse gas emissions within~~ *energy efficiency of reduced*
10 *high-GWP charge systems and dedicated low-GWP systems for*
11 stationary refrigeration and air-conditioning ~~systems~~ and an
12 assessment of the ~~energy efficiency of low-GWP systems. nexus~~
13 *between their energy efficiency and life cycle greenhouse gas*
14 *emissions, including direct and indirect emissions.*

15 (2) An analysis of the current technological status of stationary
16 ~~refrigerant~~ *refrigeration* and air-conditioning systems using
17 *reduced high-GWP charge and dedicated low-GWP materials for*
18 *cooling purposes* and their potential for use in California, *including,*
19 *but not limited to, systems using carbon dioxide, ammonia,*
20 *hydrocarbons, synthetic refrigerant compounds, or other low-GWP*
21 *gases.*

22 (3) An analysis of the economic costs ~~at the consumer and~~
23 *impacts at the equipment, consumer,* and state level associated
24 ~~with low-GWP installation~~ *the installation of reduced high-GWP*
25 *charge systems and dedicated low-GWP systems for stationary*
26 *refrigeration and air-conditioning.* The analysis shall include, but
27 is not limited to, the costs of manufacturing, equipment operation
28 and maintenance, personnel training, and equipment importation.

29 (4) An analysis of the safety of ~~low-GWP materials~~ *high-GWP*
30 *materials, low-GWP materials, reduced high-GWP charge systems,*
31 *and dedicated low-GWP systems for stationary refrigeration and*
32 *air-conditioning.*

33 (5) Identification of existing laws, codes, regulations, and
34 incentive programs pertinent to the safety and energy efficiency
35 of stationary refrigeration and air-conditioning systems.

36 (6) An analysis of how existing laws, codes, regulations, and
37 incentive programs can be modified to promote the use of
38 ~~low-GWP refrigerants and systems that use low-GWP refrigerants~~
39 *in reduced high-GWP charge systems and dedicated low-GWP*
40 *systems for stationary refrigeration and air-conditioning systems.*

1 (7) ~~Recommendations—An analysis of the potential for new~~
2 ~~incentive programs and pilot programs to promote the use of~~
3 ~~low-GWP refrigerants and systems that use low-GWP refrigerants~~
4 ~~in stationary refrigeration and air-conditioning systems; and market~~
5 ~~capitalization of reduced high-GWP charge systems and dedicated~~
6 ~~low-GWP systems for stationary refrigeration and air-conditioning.~~

7 (8) An assessment of the potential for adoption of reduced
8 high-GWP charge systems and dedicated low-GWP systems in
9 stationary refrigeration and air-conditioning units in California by
10 2020.

11 (9) *Recommendations for new research and development of*
12 *reduced high-GWP charge systems and dedicated low-GWP*
13 *systems for stationary refrigeration and air-conditioning.*

14 (c) The commission shall conduct the study in coordination with
15 the State Air Resources Board, *utilizing as integral to the study,*
16 *any related work already undertaken by the board in conjunction*
17 *with the board's implementation of the mandates in the California*
18 *Global Warming Solutions Act of 2006 (Division 25.5 (commencing*
19 *with Section 38500) of the Health and Safety Code) and related*
20 *activities, to ensure all of the following:*

21 (1) The State Air Resources Board has the opportunity to
22 participate in the development and preparation of the findings of
23 the study *and has made available, within the bounds of its resource*
24 *constraints, any pertinent information gathered in the context of*
25 *the board's responsibilities pursuant to the California Global*
26 *Warming Solutions Act of 2006.*

27 (2) The State Air Resources Board has the opportunity to
28 coauthor a portion of the final report concerning the environmental
29 impact of refrigerants, refrigeration systems or air-conditioning
30 systems, including, but not limited to, impacts on climate change
31 and ambient air quality.

32 (3) Meetings between appointed representatives of the
33 commission and of the State Air Resources Board, shall be held
34 no less frequently than once every other month between January
35 1, 2010, and the completion of the final report. The executive
36 director of the commission and of the State Air Resources Board
37 shall appoint a representative for his or her agency, respectively.

38 (4) The study is conducted and finalized in an open and public
39 process, with meaningful opportunity for the public to participate
40 prior to release of the final report.

1 (d) On or before January 1, 2012, the commission shall submit
2 to the Legislature and post on its Internet Web site the findings
3 and results of the study.

4 ~~(e) The commission may utilize existing funds, to the extent
5 they are available, to perform both of the following:~~

6 ~~(1) Develop incentive programs to promote the installation of
7 reduced high-GWP charge systems and dedicated low-GWP
8 systems for stationary refrigeration and air-conditioning units in
9 California.~~

10 ~~(2) Develop pilot projects within California to install reduced
11 high-GWP charge systems and dedicated low-GWP stationary
12 refrigeration and air-conditioning units.~~

13 ~~(f)~~

14 (e) The State Air Resources Board may use funds, to the extent
15 they are available, generated from fees assessed on high-GWP
16 refrigerants used for stationary refrigeration and air-conditioning
17 units and on stationary refrigeration and air-conditioning units
18 containing high-GWP compounds to do all of the following:

19 ~~(1) Develop incentive programs to promote~~ *Beginning December
20 1, 2011, develop and implement incentive programs to provide
21 partial or full funding for the installation of reduced high-GWP
22 charge systems and dedicated low-GWP systems for stationary
23 refrigeration and air-conditioning units in California.*

24 ~~(2) Develop pilot~~ *Beginning December 1, 2011, develop and
25 implement pilot and demonstration projects within California to
26 install reduced high-GWP charge systems and dedicated low-GWP
27 systems for the purpose of conducting research on energy
28 efficiency, potential environmental impact, safety, technology
29 applicability, and technology development.*

30 ~~(3) Develop~~ *Beginning December 1, 2011, develop* worker
31 training programs to promote the installation of reduced high-GWP
32 charge systems and dedicated low-GWP systems in California.

33 ~~(4) Develop~~ *Beginning January 1, 2010, develop* programs to
34 reduce or prevent the emissions of high-GWP compounds to the
35 atmosphere from in-use and retired stationary refrigeration and
36 air-conditioning units;. The programs may include, but are not
37 limited to, worker training for inspection and maintenance of in-use
38 equipment, destruction of high-GWP compounds, and creation of
39 protocols to quantify reduction of emissions.

- 1 (5) *An incentive program, pilot and demonstration project,*
2 *worker training program, and emissions reduction program*
3 *developed by the State Air Resources Board pursuant to this*
4 *subdivision for new or in-use equipment shall be developed through*
5 *an open and public process, with meaningful opportunity for public*
6 *participation, in a manner that is consistent with the process by*
7 *which regulations implementing the California Global Warming*
8 *Solutions Act of 2006 are adopted, and in conformity with the*
9 *findings of the study conducted pursuant to this section, if any.*
- 10 (f) *The State Air Resources Board is responsible for*
11 *implementing any findings of the study conducted pursuant to this*
12 *section consistent with the board’s responsibility pursuant to*
13 *Section 38510 of the Health and Safety Code.*
- 14 (g) (1) *This chapter does not limit the existing authority of a*
15 *state agency to adopt or implement regulations, including*
16 *regulations pertaining to stationary refrigeration and*
17 *air-conditioning equipment.*
- 18 (2) *This chapter does not relieve a state entity of its obligation*
19 *to comply with existing law or obligations.*