

Introduced by Senator MonningFebruary 14, 2014

An act to add Article 11.6. (commencing with Section 25243) to Chapter 6.5 of Division 20 of the Health and Safety Code, relating to hazardous waste.

LEGISLATIVE COUNSEL'S DIGEST

SB 1020, as introduced, Monning. Hazardous waste: photovoltaic panels: collection and recycling programs.

(1) The Hazardous Waste Control Law, among other things, vests the Department of Toxic Substances Control with the authority to regulate the generation and disposal of hazardous waste. A violation of the Hazardous Waste Control Law is a crime.

This bill would enact the California Photovoltaic Panel Collection and Recycling Act of 2014 in the Hazardous Waste Control Law and would require photovoltaic panel manufacturers, individually or collectively, or with photovoltaic panel vendors, to establish a program for the collection and recycling of end-of-life photovoltaic panels that meets specified criteria. The bill would require the Department of Toxic Substances Control to approve a program that meets those criteria and would prohibit a photovoltaic panel manufacturer that fails to establish an approved program from selling or offering for sale photovoltaic panels in the state, as specified. The bill would require the department to impose a reasonable annual administrative fee, as specified, and would provide for the deposit of the fees in the Photovoltaic Panel Collection Administration Account, which this bill would establish in the State Treasury. The bill would authorize the department to expend those fees, upon appropriation by the Legislature, to cover the

department’s costs to implement and enforce the bill’s requirements, as specified.

The bill would require a contractor removing end-of-life photovoltaic panels and a person who demolishes a building having end-of-life photovoltaic panels to take the panels to an appropriate location for collection and recycling. The bill would require the bidder on state contracts for the purchase or lease of solar energy systems to certify that the photovoltaic panels used are purchased from a photovoltaic panel manufacturer in compliance with the above requirements.

Because a violation of the act would be a crime, this bill would impose a state-mandated local program.

(2) 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 a specified reason.

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. Article 11.6 (commencing with Section 25243)
2 is added to Chapter 6.5 of Division 20 of the Health and Safety
3 Code, to read:

4
5 Article 11.6. California Photovoltaic Panel Collection and
6 Recycling Act of 2014
7

8 25243. This act shall be known, and may be cited, as the
9 California Photovoltaic Panel Collection and Recycling Act of
10 2014.

11 25243.1. (a) The Legislature finds and declares all of the
12 following:

13 (1) California’s policy, including the policies reflected in the
14 California Solar Initiative (Chapter 8.8 (commencing with Section
15 25780) of Division 15 of the Public Resources Code), the state’s
16 net energy metering program, and the California Renewable
17 Portfolio Standard Program (Article 16 (commencing with Section
18 399.11) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities
19 Code), has made California the leading state in the installation of

1 solar energy systems by providing ratepayer-funded incentives to
2 eligible solar energy systems, resulting in substantially increased
3 utilization by homes, businesses, and utilities.

4 (2) Existing solar energy systems use photovoltaic technology
5 to capture sunlight and convert it into electricity until the end of
6 their useful lives, estimated to be between 20 and 25 years. Today’s
7 most common solar photovoltaic technology is based on silicon
8 semiconductors, and uses manufacturing processes and materials
9 similar to those of the microelectronics industry. New technologies
10 are lowering the manufacturing cost by using less semiconductor
11 material and streamlining production. Many of these new
12 technologies use toxic, explosive, corrosive, or potentially
13 carcinogenic materials, such as cadmium and selenium.

14 (3) The numerous renewable and customer-generated solar
15 programs in California have led to a rapid expansion of solar
16 energy systems and given rise to an emerging photovoltaic industry.
17 It is critical to consider the potential environmental and public
18 health impacts associated with end-of-life photovoltaic panels.

19 (b) It is the intent of the Legislature to do all of the following:

20 (1) Foster a comprehensive and innovative system for the reuse,
21 recycling, and proper and legal disposal of end-of-life photovoltaic
22 panels.

23 (2) Establish a program that makes it convenient for consumers
24 and the public to return and recycle photovoltaic panels, ensures
25 the environmentally safe disposal of end-of-life photovoltaic
26 panels, and provides a system that does not create an undue burden
27 when a photovoltaic panel exceeds its useful life.

28 (3) Ensure that the cost associated with the handling, recycling,
29 and disposal of end-of-life photovoltaic panels shall be the
30 responsibility of the photovoltaic panel manufacturers and vendors
31 and consumers of solar energy systems, and not local governments
32 or their service providers, state government, or taxpayers.

33 (4) Reduce the likelihood of illegal disposal of hazardous
34 materials, by ensuring that all costs associated with the proper
35 management of end-of-life photovoltaic panels are internalized by
36 the photovoltaic panel manufacturers and vendors and consumers
37 of solar energy systems at or before the point of purchase, and not
38 at the point of discard.

39 (5) Provide flexibility to photovoltaic panel manufacturers and
40 vendors to partner with each other and with those private and

1 nonprofit business enterprises that currently provide collection
2 and processing services to develop and promote a safe and effective
3 end-of-life photovoltaic panel recycling system for California.

4 (6) Provide for the collection and recycling of the maximum
5 feasible number of end-of-life photovoltaic panels.

6 (7) Encourage photovoltaic panel manufacturers and vendors
7 to establish a cost-effective system for the recovery, reuse,
8 recycling, and proper disposal of end-of-life photovoltaic panels,
9 and to build on existing photovoltaic panel take-back and recycling
10 programs.

11 (c) It is further the intent of the Legislature that:

12 (1) Photovoltaic panels, to the greatest extent feasible, should
13 be designed for extended life, repair, and reuse.

14 (2) Collection and recycling services should be provided for the
15 maximum feasible number of end-of-life photovoltaic panels.

16 25243.2. For the purposes of the article, the following
17 definitions shall apply:

18 (a) “Consumer” means a purchaser or owner of a photovoltaic
19 panel. “Consumer” includes a business, corporation, limited
20 partnership, nonprofit organization, or governmental entity.

21 (b) “End-of-life photovoltaic panel” means a photovoltaic panel
22 that has been used and is removed from a building or facility in
23 this state and is intended to be discarded.

24 (c) “Photovoltaic panel manufacturer” or “manufacturer” means
25 a business concern that manufactures and sells photovoltaic panels
26 directly to a consumer or enters into an agreement to provide a
27 solar energy system directly to a consumer.

28 (d) “Photovoltaic panel vendor” or “vendor” means a business
29 concern that retains ownership of photovoltaic panels and enters
30 into an agreement with a consumer for the purpose of providing
31 a solar energy system directly to a consumer, which agreement is
32 commonly referred to as “third-party solar financing.”

33 (e) “Photovoltaic panel” means a device that is a part of a solar
34 energy system having the primary purpose of providing nonthermal
35 generation of electricity from solar energy.

36 (f) “Program” means a system for the collection, transportation,
37 reuse, recycling, and proper management of end-of-life
38 photovoltaic panels.

1 (g) “Solar energy system” means a nonthermal electrical
2 generation system using solar energy and composed of one or more
3 photovoltaic panels.

4 25243.3. (a) A photovoltaic panel manufacturer shall,
5 individually or collectively with a group or organization of
6 photovoltaic panel manufacturers, photovoltaic panel vendors, or
7 both manufacturers and vendors, establish, finance, manage, and
8 maintain a program in compliance with this article.

9 (b) (1) A photovoltaic panel manufacturer that fails to comply
10 with this article shall not sell or offer for sale in this state a
11 photovoltaic panel.

12 (2) The sales prohibition specified in paragraph (1) shall be
13 effective on the 120th calendar day after the notice specified in
14 subdivision (c) listing the photovoltaic panel manufacturer is posted
15 on the department’s Internet Web site and shall remain in effect
16 until the photovoltaic panel manufacturer is no longer listed.

17 (c) (1) On July 1, 2015, and on January 1 and July 1 of each
18 year thereafter, the department shall post a notice on its Internet
19 Web site listing photovoltaic panel manufacturers that are not in
20 compliance with this article.

21 (2) Upon a determination that a photovoltaic panel manufacturer
22 listed pursuant to paragraph (1) is in compliance with this article,
23 the department shall immediately remove that photovoltaic panel
24 manufacturer from the list.

25 25243.4. A program established pursuant to this article shall
26 do all of the following:

27 (a) Collect and arrange for the management of end-of-life
28 photovoltaic panels in compliance with this chapter and the
29 regulations adopted pursuant to this chapter.

30 (b) On and after July 1, 2015, provide accessible and convenient
31 locations for consumers to drop off an end-of-life photovoltaic
32 panel.

33 (c) Either arrange for the pickup from dropoff locations, or pay
34 for the costs of shipping, of the end-of-life photovoltaic panels
35 provided pursuant to subdivision (b) for proper handling and
36 management.

37 (d) Undertake education and outreach efforts, including, but not
38 limited to, all of the following:

39 (1) One or more public service announcements promoting the
40 proper management of end-of-life photovoltaic panels. Copies of

1 the public service announcements shall be provided to the
2 department and the Department of Resources Recycling and
3 Recovery for their use and promotion.

4 (2) A publicly accessible Internet Web site that contains
5 templates of educational materials in a form and format that can
6 be easily downloaded. A link to this Internet Web site shall be
7 provided to the department and to the Department of Resources
8 Recycling and Recovery.

9 (3) Methods to engage other stakeholders, such as waste,
10 demolition, and installation organizations, as well as appropriate
11 state agencies and local governments, to secure support and
12 participation that encourages proper management of end-of-life
13 photovoltaic panels throughout California.

14 (4) Strategies to work with California utilities involving the
15 installation or replacement of solar energy systems and to
16 encourage their participation in the collection and proper
17 management of end-of-life photovoltaic panels. These strategies
18 may include the inclusion of an educational insert in their
19 customers' utility bills.

20 (5) Contacting other photovoltaic panel manufacturers in
21 California and encouraging their support and participation in
22 educating their customers on the proper management of end-of-life
23 photovoltaic panels.

24 (e) Develop, and update as necessary, education and other
25 outreach materials aimed at solar energy system contractors,
26 demolition contractors and their associations, utilities, and
27 consumers. These materials shall include, but are not limited to,
28 one or more of the following:

29 (1) Signage that is prominently displayed and easily visible to
30 consumers and installers.

31 (2) Written materials and templates of materials for reproduction
32 by photovoltaic panel manufacturers and vendors that are to be
33 provided to the consumer at the time of purchase, delivery, or both
34 purchase and delivery of a solar energy system. The materials shall
35 include information on the improper disposal of photovoltaic
36 panels, the proper management of end-of-life photovoltaic panels,
37 and the options for proper collection.

38 (3) Advertising and other promotional materials, or both, that
39 include references to the collection opportunities.

1 (f) Provide incentives and education to contractors, service
2 technicians, and consumers to encourage the return of end-of-life
3 photovoltaic panels.

4 (g) On or before April 1, 2016, and on or before April 1 annually
5 thereafter, submit a report to the department covering the one-year
6 period ending December 31 of the previous calendar year. Each
7 report shall be posted on the photovoltaic panel manufacturer's or
8 program's Internet Web site. The annual report shall include all
9 of the following:

10 (1) The number of end-of-life photovoltaic panels collected by
11 the photovoltaic panel manufacturer, group, or organization in
12 California during the previous calendar year.

13 (2) The estimated total amount of hazardous waste in the
14 collected end-of-life photovoltaic panels.

15 (3) An evaluation of the effectiveness of the program.

16 (4) Commencing with the report due on April 1, 2019, a
17 comparison to the performance requirements for collection
18 established pursuant to subdivision (b) of Section 25243.6.

19 (5) An accounting of the program administrative costs, including
20 a copy of Internal Revenue Service Form 990 for a nonprofit
21 organization's program. For a for-profit organization's program,
22 the photovoltaic panel manufacturer or vendor, or group of
23 photovoltaic panel manufacturers or vendors operating the program,
24 shall submit independently audited financial statements detailing
25 revenues and a full accounting of administrative costs incurred.

26 (6) A description of the outreach strategies employed to increase
27 participation and collection rates.

28 (7) Examples of outreach and educational materials used.

29 (8) Names and locations of any accessible collection locations.

30 (9) The number of end-of-life photovoltaic panels collected at
31 each collection location.

32 (10) The Internet Web site address where the annual report may
33 be viewed online.

34 (11) A description of how end-of-life photovoltaic panels were
35 managed.

36 (12) Modifications that the photovoltaic panel manufacturer,
37 group, or organization is proposing to make in its program.

38 25243.5. (a) A photovoltaic panel manufacturer or a group or
39 organization of manufacturers or vendors or both, as described in

1 subdivision (a) of Section 25243.3, shall submit its program to the
2 department for approval.

3 (b) The department shall approve the program if the program
4 complies with the criteria set forth in Section 25243.4.

5 25243.6. (a) The department may order a photovoltaic panel
6 manufacturer, or a group or organization of photovoltaic panel
7 manufacturers or vendors, or both, operating a program, to revise
8 its program and to undertake actions to comply with this article.

9 (b) On or before January 1, 2016, the department shall adopt
10 regulations for both of the following:

11 (1) To develop performance requirements that specify reasonable
12 and feasible collection rates expressed as a percentage of
13 photovoltaic panels sold in the state by the photovoltaic panel
14 manufacturer, group, or organization.

15 (2) To establish a methodology for the calculation of the number
16 of end-of-life photovoltaic panels that annually become waste.

17 (c) (1) The photovoltaic panel manufacturer or group or
18 organization operating a program shall pay the department an
19 annual administrative fee pursuant to paragraph (2).

20 (2) The department shall impose a fee in a reasonable amount
21 that is sufficient to cover the department’s costs of administering
22 and enforcing this article with respect to the photovoltaic panel
23 manufacturers or groups or organizations operating a program,
24 including regulatory costs incurred by the department.

25 (d) The Photovoltaic Panel Collection Administration Fund is
26 hereby established in the State Treasury. All fees collected by the
27 department pursuant to this section shall be deposited in the
28 Photovoltaic Panel Collection Administration Fund and may be
29 expended by the department, upon appropriation by the Legislature,
30 to cover the department’s costs to implement and enforce this
31 article with respect to the photovoltaic panel manufacturers or
32 groups or organizations operating a program.

33 25243.7. A contractor that removes an end-of-life photovoltaic
34 panel shall handle the end-of-life photovoltaic panel in accordance
35 with all applicable regulations adopted pursuant to this chapter,
36 and take the end-of-life photovoltaic panel to an appropriate
37 location for collection and recycling in accordance with those
38 regulations.

39 25243.8. A person that demolishes a building having a
40 photovoltaic panel shall remove the photovoltaic panel from the

1 building prior to demolition in accordance with all applicable
2 regulations adopted pursuant to this chapter, and take the material
3 to a location that is authorized to collect end-of-life photovoltaic
4 panels.

5 25243.9. (a) A state agency that purchases or leases solar
6 energy systems shall require each prospective bidder to certify that
7 the photovoltaic panels for the solar energy system are obtained
8 from a photovoltaic panel manufacturer that is in compliance with
9 this article.

10 (b) Notwithstanding any other law, a bidder that fails to provide
11 the certification pursuant to subdivision (a) shall be deemed a
12 nonresponsive bidder not eligible to be awarded the contract for
13 the procurement or leasing of solar energy systems.

14 (c) The bid solicitation documents shall specify that the
15 prospective bidder is required to cooperate fully in providing
16 reasonable access to its records and documents demonstrating
17 compliance with this section.

18 (d) In addition to other penalties, a person awarded a contract
19 that is found to have provided a false certification is subject to all
20 of the following:

21 (1) The contract awarded shall be voided by the state agency to
22 which the solar energy system was provided.

23 (2) The contractor shall be ineligible to bid on other state
24 contracts for a period of three years.

25 (3) The contractor shall be subject to the disgorgement of any
26 money, property, or benefit obtained by the contractor as a result
27 of violating this section, as ordered by a court in the interest of
28 justice.

29 SEC. 2. No reimbursement is required by this act pursuant to
30 Section 6 of Article XIII B of the California Constitution because
31 the only costs that may be incurred by a local agency or school
32 district will be incurred because this act creates a new crime or
33 infraction, eliminates a crime or infraction, or changes the penalty
34 for a crime or infraction, within the meaning of Section 17556 of
35 the Government Code, or changes the definition of a crime within
36 the meaning of Section 6 of Article XIII B of the California
37 Constitution.

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