Office of Senate Floor Analyses
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THIRD READING

Bill No: SB 1010
Author: Ashby (D)
Amended: 3/25/26
Vote: 21

SENATE JUDICIARY COMMITTEE: 11-2, 4/21/26
AYES: Umberg, Allen, Ashby, Caballero, Durazo, Laird, Reyes, Stern, Wahab, Weber Pierson, Wiener
NOES: Niello, Valladares

SENATE ENVIRONMENTAL QUALITY COMMITTEE: 5-2, 4/22/26
AYES: Blakespear, Allen, Gonzalez, Hurtado, Menjivar
NOES: Valladares, Dahle

SENATE APPROPRIATIONS COMMITTEE: 5-2, 5/14/26
AYES: Cervantes, Cabaldon, Grayson, Richardson, Wahab
NOES: Seyarto, Dahle

SUBJECT: Solid waste: Refrigerant Stewardship and Recovery Act

SOURCE: California Product Stewardship Council

DIGEST: This bill establishes an Extended Producer Responsibility (EPR) program for household appliances containing refrigerants.

ANALYSIS:

Existing Federal law requires technicians who maintain, service, repair, or dispose of equipment that could release refrigerants to be certified. (Section 608 of the Clean Air Act; Title 40 of the Code of Federal Regulations (CFR) Part 80, Subpart F)

Existing State law:

1) Establishes a state recycling goal of 75% of solid waste generated to be diverted from landfill disposal through source reduction, recycling, and composting under the Integrated Waste Management Act of 1989 (IWMA; AB 939 (Sher)).

    a) Requires each state agency and each large state facility to divert at least 50% of all solid waste through source reduction, recycling, and composting activities. (Public Resources Code (PRC) §§ 41784, 41786)

2) Establishes the Plastic Pollution Prevention and Packaging Producer Responsibility Act (SB 54 (Allen, Chapter 75, Statutes of 2022)) which requires the following of single-use plastic packaging and food service ware:
    a) 65% of covered materials be recyclable or compostable by 2032;
    b) To be considered recycled, covered materials must be sent to a responsible end market defined as "a materials market in which the recycling and recovery of materials or the disposal of contaminants is conducted in a way that benefits the environment and minimizes risks to public health and worker health and safety;"
    c) The creation of a Producer Responsibility Organization (PRO) to implement the requirements of this act; and
    d) An eco-modulated fee structure where producers pay a lower fee to the PRO if a covered material that is easier and less expensive to recycle or compost (PRC § 42040 et seq.)

3) Defines a certified reclaimed refrigerant as a refrigerant reclaimed by a refrigerant reclaimer certified by the United States EPA and containing no greater than 15% new hydrofluorocarbon refrigerant (AB 663 (McKinnor, Chapter 161, Statutes of 2025)); Health and Safety Code (HSC) § 39735(a)(2))

4) Prohibits the sale or distribution of bulk hydrofluorocarbons that exceed a specified global warming potential except for certified reclaimed refrigerants by the following dates:
    a) the global warming potential shall not exceed 2,200 by January 1, 2025;
    b) the global warming potential shall not exceed 1,500 by January 1, 2030;
    c) the global warming potential shall not exceed 750 by January 1, 2033. (AB 663 (McKinnor, Chapter 161, Statutes of 2025); HSC § 39735(b))

5) Defines hydrofluorocarbons as a greenhouse gas through the California Global Warming Solutions Act of 2006. (AB 32 (Nunez, Chapter 488, Statutes of 2006); HSC § 38505(g))

6) Requires a 40% reduction in statewide hydrofluorocarbon emissions below 2013 levels by 2030. (SB 1383 (Lara, Chapter 395, Statutes of 2016))

This bill:

1) Defines covered products as the following, when not used for industrial, commercial, or medical use:
   a) Refrigerators;
   b) Freezers;
   c) Combination refrigerator-freezers;
   d) Window air conditioners;
   e) Portable air conditioners;
   f) Dehumidifiers;
   g) Wine or beverage coolers; and
   h) Any other consumer appliance designated by CalRecycle.

2) Defines producers as the following:
   a) A person who manufactures a covered product;
   b) A person who owns or is the licensee of the brand or trademark under which a covered product is sold or distributed for sale in the state;
   c) If not (a) or (b), a person who imports the covered product into the state for sale or distribution
   d) If not (a), (b), or (c), the distributor, retailer, or wholesaler who sells the product in the state.

3) Uses the definition of a responsible end market from SB 54 (Allen). (PRC § 42041)

4) Requires producers of covered materials to join a Producer Responsibility Organization (PRO) by July 1, 2028.

5) Requires the following of the PRO:
   a) Submit an application to operate to CalRecycle by January 1, 2028;
   b) Submit a producer responsibility plan to CalRecycle within a year of final rulemaking which is to be completed by January 1, 2029;
   c) Complete the producer responsibility plan including the following by January 1, 2031:
      i) Information on the producers and brands covered under the plan;
      ii) A description of the PRO funding using a per unit eco-modulated fee;

iii) A five-year budget including estimate revenues, costs, and a reserve fund;
iv) Be in the public record; and
v) A description of how the PRO will achieve several goals including convenient drop off collection sites, the transportation of covered products to authorized sorters or repair businesses, among other goals.

d) Have a governing board;
e) Demonstrate adequate financial responsibility;
f) Approve or terminate collection sites;
g) Maintain a reserve fund sufficient to operate the PRO for six months;
h) Pay CalRecycle fees to cover the PRO's oversight and regulatory costs which will be deposited into the Refrigerant Stewardship Recovery Fund;
i) Review their producer responsibility plan every 5 years.

6) Requires CalRecycle to do the following:
   a) Develop regulations in consultation with the Department of Toxic Substance Control (DTSC);
   b) Approve a PRO by March 1, 2028 and approve a producer responsibility plan by January 31, 2031; and
   c) Establish, review, and adjust performance standards.

7) Establishes a $10,000 to $50,000 per day fine for violations of the bill which are deposited to the Refrigerant Stewardship Recovery Penalty Account.

8) Makes findings and declarations.

Background

1) *The basics of EPR programs*. One strategy to reduce waste generation is to put responsibility on producers to oversee the safe end-of-life of their products through an EPR program. EPR programs rely on industry, formalized in a PRO, to develop and implement approaches to create a circular economy that make business sense, with oversight and enforcement provided by the government. EPR programs require producers to factor in costs associated with disposal. In doing so, EPR programs incentivize industry to design products with waste minimization in mind. Currently, there are six statewide EPR programs: paint, carpet, mattresses, pharmaceutical and sharps waste, batteries, and, following the passage of SB 54, packaging and single-use plastic service-ware items.

2) *Appliance recycling: market and regulations*. Appliances are profitable to recycle, consisting of (on average) 75% steel, an easy to recycle material with a high scrap value.[1] The American Iron and Steel Institute reports that appliances have a 78% recycling rate in the US.[2] However, appliances such as freezers and refrigerators may also contain hazardous materials.

   Refrigerants are designated as a "Material that Requires Special Handling" (MRSH; PRC § 42167) and therefore cannot be disposed of like typical solid waste. An appliance containing only refrigerants must be handled by a technician certified under Section 608 of the Clean Air Act under the U.S. EPA. An appliance containing refrigerants and additional MRSHs must be certified both by the EPA and as a Certified Appliance Recycler (CAR) by DTSC.

   Landfills and metal recyclers cannot dispose of, crush, or process appliances which contain refrigerants. First, they must verify that the appliance has been processed by an EPA certified technical or have on-site EPA certified technicians who can remove the refrigerant. Since metal scrap is profitable, appliances which have had the refrigerant removed rarely end up in the landfill.

3) *Finding an appliance recycler.* Local jurisdictions vary in how they collect appliances. Some jurisdictions collect appliances for free or may require residents to drop off appliances at landfills or CARs. Other jurisdictions may have no guidelines for appliance disposal, requiring residents to contact a for-profit waste removal service for pick-up or drop-off of the appliance.

   As of 2021, there were 129 Certified Appliance Recyclers.[3] A map of CARs on the DTSC website shows several counties without access to an appliance recycler.[4] However, consumers have more options beyond CARs. Metal recyclers also serve as drop-off locations but are not mapped by DTSC. When these drop-off locations aren't CARs, the appliances are transported by the metal recycler to a CAR. Since these locations are not certified or managed by an agency, there's no accessible tool to determine where they are located or how many there are. Therefore, though appliances are highly recyclable (both

[1] American Iron and Steel Institute, *Appliances and Steel Make Life Easier: Steel Appliance Facts* https://www.steel.org/steel-markets/appliances
[2] American Iron and Steel Institute (2021) *Determination of Steel Recycling Rates in the United States, Technical Report.*
[3] DTSC (2021) *Approved Certified Appliance Recycler List by City*.
[4] DTSC, *Certified Appliance Recycler (CAR) Program,* https://dtsc.ca.gov/certified-appliance-recycler-car-program

the scrap metal and the refrigerant), many may end up in landfills or illegally dumped in absence of a certified recycler.

4) *Illegal Dumping*. Illegal dumping is a crime punishable by a fine up to $10,000 and up to 6 months in jail (Penal Code (PEN) § 374, HSC §117555). The metal recycling industry claims that since scrap metal is so valuable, even orphaned appliances are collected by recyclers. Recyclers are incentivized to collect orphaned appliances because they are not liable for the venting of MRSH vented before retrieval as long as a DTSC 1459: Certified Appliance Recycler Orphan Waste Form is completed and submitted to DTSC.[5] The 1459 Form reports missing MRSH to DTSC. After retrieval, a CAR is responsible for properly processing any remaining MRSH.

   While it is a success that illegally dumped appliances are ultimately processed by certified recyclers, these orphaned appliances are still at higher risk of venting refrigerants into the atmosphere compared to an appliance disposed of legally. However, there are no publicly available statistics on orphan appliances in California, despite the Form 1459 data collection. It is unclear the extent to which and where the illegal dumping of appliances is a significant problem.

5) *Refrigerants and Climate Change*. Hydrofluorocarbon (HFCs) refrigerants were developed when chlorofluorocarbons (CFSs) were banned (in the US in 1978 and globally by the Montreal Protocol in 1987) for damaging the vital ozone layer.[6] HFCs are potent greenhouse gases (GHGs) with global warming potentials ranging from 124 to 14,800 times that of carbon dioxide.[7] HFCs on average stay in the atmosphere for 15 years and represent 2% of total GHG emissions.[8]

   Due to the increasing use of HFCs,[9] the international community adopted the Kigali amendment to the Montreal Protocol in 2016, which set a goal to reduce

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[5] DTSC, *CAR Program – Managing Major Appliances*, https://dtsc.ca.gov/certified-appliance-recycler-car-program/car-program-managing-major-appliances/
[6] US EPA (1993) *Regulatory History of CFCs and Other Stratospheric Ozone-Depleting Chemicals (to 1993),* https://www.epa.gov/archive/epa/aboutepa/regulatory-history-cfcs-and-other-stratospheric-ozone-depleting-chemicals-1993.html
[7] US EPA (2026) *Technology Transitions GWP Reference Table***,** https://www.epa.gov/climate-hfcs-reduction/technology-transitions-gwp-reference-table
[8] Climate and Clean Air Coalition, *Hydrofluorocarbons (HFCS)*, https://www.ccacoalition.org/short-lived-climate-pollutants/hydrofluorocarbons-hfcs
[9] NOAA Chemical Sciences Laboratory (2022) *Projections of HFC emissions and the resulting global warming*, https://csl.noaa.gov/news/2022/350_0511.html

HFC emissions by more than 80% over 30 years.[10] California also has a state-wide goal of a 40% reduction In HFC emissions below 2013 levels by 2030 (SB 1383 (Lara)). Additionally, as part of the California Global Warming Solutions Act of 2006, the California Air Resources Board (CARB) established the Refrigerant Management Program which requires registration of appliances with refrigerants, refrigerant leak detection and monitoring, leak repair, system retrofitting, and refrigerant distributor, wholesaler, and reclaimer prohibitions, recordkeeping, and reporting.[11]

Some manufactures claim to have made the switch to climate or environmentally friendly refrigerants, such as R-32, R-513A, or R-600.[12] However, CARB warns that "in some cases high-GWP refrigerants have been advertised as 'environmentally friendly' or 'low-GWP' when they are in fact high-GWP and regulated under the [Refrigerant Management Program]. Be sure to verify any advertised claims." There is no publicly available data on the industry switch to truly low global warming potential refrigerants.

Comments

1) *Purpose of Bill.* According to the author, "Many of the household appliances we use every day – such as refrigerators, freezers, and air conditioners – contain refrigerants, which are gases used to absorb and release heat to keep our homes cool and our food fresh. However, when not properly handled at the end of their useful life, these refrigerants can escape into the atmosphere with serious climate consequences. Refrigerants are the fastest growing source of greenhouse gas emissions in California, with some gases having global warming potential hundreds to thousands of times greater than carbon dioxide. The impact of proper recovery is clear – for every 1,000 refrigerators responsibly recycled, emissions are reduced by the equivalent of removing 1,500 cars from the road for a year.

   "SB 1010 will help prevent the release of potent greenhouse gases and support responsible appliance management by establishing a manufacturer stewardship program. Under SB 1010, manufacturers will be responsible for developing and funding a statewide plan for the collection, transportation, and management of discarded appliances. Without a proper end-of-life appliance

[10] US EPA (2026) *Recent International Developments under the Montreal Protocol,* https://www.epa.gov/ozone-layer-protection/recent-international-developments-under-montreal-protocol
[11] CARB, Refrigerant Management Program*, https://ww2.arb.ca.gov/es/our-work/programs/refrigerant-management-program/about*
[12] The Refrigerant School, *What are the Most Environmentally Friendly Refrigerants?* https://www.rsi.edu/blog/skilled-trades/what-are-the-most-environmentally-friendly-refrigerants/

management system in place, these dangerous greenhouse gas emissions will continue to grow as more appliances reach the end of their useful life – undermining the climate progress we have worked so hard to achieve in California."

2) *If it ain't broke…* EPR programs can be a great solution for products where it is burdensome on the consumer or recycler to properly dispose of the product.

   Which problem is SB 1010 looking to solve? Metal scrap is profitable enough that there is already a market collecting, processing, shredding, and melting down appliances. The next possibility is a lack of consistent and convenient opportunities for the consumer to properly dispose of an appliance. Orphaned appliances have the potential to release potent GHGs into the atmosphere. However, the extent of this problem is not known. Ultimately, appliances already have an exceptionally high recycling rate (78%), close to that of the highly successful mattress EPR program.[2,13]

3) *Rates and Dates*. EPR programs often have target recycling rates to achieve on specified timelines. In this case, the recycling rate refers to the percentage of covered products which go to responsible end markets out of all the covered products sold. Currently, SB 1010 gives discretion to CalRecycle to set performance standards and dates. There is precedent for this in the mattress EPR program. CalRecycle reached an 81% recycling rate in 2019 and aims to maintain or exceed an 83% recycling rate from 2025 to 2029.[16]

   In contrast, SB 54 (Allen) prescribed performance standards, requiring recycling rates no less than 30%, 40%, 65% by January 1, 2028, 2030, 2032, respectively. These rates were chosen in collaboration with lawmakers and industry leaders to create an ambitious and realistic roadmap to reduce single-use plastic. Prescribed rates and dates can be more ambitious, acting as a north star for an EPR program, in contrast to those chosen by an agency which can be less ambitious but more feasible.

FISCAL EFFECT:

According to the Senate Appropriations Committee:

The Department of Resources Recycling and Recovery (CalRecycle) estimates implementation of this bill would be $3,325,000 in FY 2027-2028 for 16 PYs. Costs would increase to $3,503,000 for FYs 2029-2030 for 17 PYs. Ongoing

[13] CalRecycle, *State Mattress Recycling Goals*, https://calrecycle.ca.gov/mattresses/baseline/

costs after FY 2030 would be $3,843,000 for 19 PYs (Refrigerant Stewardship Recovery Fund).

The California Air Resources Board (CARB) estimated implementation of this bill would be $391,000 in FY 2027-28 and ongoing.

Appropriation: No Fiscal Com.: Yes Local: Yes

SUPPORT: (Verified 5/14/26)

California Product Stewardship Council (source)
7th Generation Advisors
A Voice for Choice Advocacy
Californians Against Waste
Center for Environmental Health
Circular Polymers
Cleanearth4kids.org
The Climate Center
The Watershed Project
Western Placer Waste Management Authority

OPPOSITION: (Verified 5/14/26)

Association of Home Appliance Manufacturers
Recycled Materials Association - West Coast Chapter

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