

Date of Hearing: April 5, 2022

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Bill Quirk, Chair

AB 2440 (Irwin) – As Amended March 28, 2022

**SUBJECT:** Responsible Battery Recycling Act of 2022

**SUMMARY:** Creates the Responsible Battery Recycling Act (Act) of 2022, which requires producers of covered batteries and covered battery-embedded products, as defined, to establish a stewardship program for the collection and recycling of covered batteries and covered battery-embedded products. Specifically, **this bill:**

- 1) Defines "covered battery" as a device consisting of one or more electrically connected electrochemical cells designed to receive, store, and deliver electric energy. (These are commonly thought of as household batteries such as single use alkaline and lithium batteries and rechargeable lithium metal, nickel cadmium, and nickel metal hydride batteries of various sizes (AAA, AA, C, D, 9-Volt, and small sealed lead-acid batteries))
- 2) Provides that "covered battery" does not include any of the following:
  - a) A primary battery weighing over two kilograms that is a non-rechargeable battery, including but not limited to alkaline, carbon-zinc, and lithium metal batteries;
  - b) A rechargeable battery weighing over five kilograms and having a watt-hour rating of more than 300 watt-hours;
  - c) A lead acid battery;
  - d) A battery contained in a motor vehicle (this exclusion does not apply to a battery in a motorized scooter, motorized skateboard, a motorized hoverboard, or a device intended to propel or move upon a highway only one individual person); and,
  - e) A fuel cell electrical generating facility.
- 3) Defines "covered battery-embedded product" as a product containing a battery or battery pack that is not designed to be removed from the product by the consumer.
- 4) Provides that "covered battery-embedded product" does not include any of the following:
  - a) A medical device;
  - b) A covered electronic device; and,
  - c) An energy storage system.
- 5) Defines "distributor" as a company that has a contractual relationship with one or more producers to market and sell covered batteries or covered battery-embedded products.

- 6) Defines "producer" as the person who manufactures the covered battery or covered battery-embedded product and who sells, offers for sale, or distributes the covered battery or covered battery-embedded product in or into the state.
- 7) Defines "rechargeable battery" as a battery that contains one or more voltaic or galvanic cells, electrically connected to produce electric energy, and that is designed to be recharged.
- 8) Provides that "rechargeable battery" does not include a battery that contains electrolytes as a free liquid or a battery that employs lead-acid technology, unless that battery is sealed and contains no free liquid electrolytes.
- 9) Defines "retailer" as a person who sells covered batteries or covered battery-embedded products in or into the state to a person through any means, including, but not limited to, sales outlets, catalogs, the telephone, the internet, or any electronic means.
- 10) Defines "stewardship organization" as an organization exempt from taxation under Section 501(c)(3) of the federal Internal Revenue Code that is established by a group of producers in accordance with this bill to develop and implement a stewardship program.
- 11) Defines "stewardship plan" or "plan" as a plan developed by a stewardship organization or producer for the collection, transportation, and recycling, and the safe and proper management, of covered batteries or covered battery-embedded products.
- 12) Defines "stewardship program" as a program established by a producer or stewardship organization for the free and convenient collection, transportation, and recycling, and the safe and proper management, of covered batteries, covered battery-embedded products, or covered batteries and covered battery-embedded products pursuant to a plan approved by CalRecycle.
- 13) Requires, on or before January 1, 2025, the Department of Resources, Recycling, and Recovery, (CalRecycle), in consultation with the Department of Toxic Substances Control (DTSC), to adopt regulations to implement the Act.
- 14) Requires a producer, no later than 90 days after the effective date of the Act, to provide to CalRecycle a list of covered batteries and covered battery-embedded products that the producer sells or offers for sale in the state.
- 15) Authorizes producers to establish one or more stewardship organizations to develop and implement the covered battery and covered battery-embedded product recycling program established by this Act.
- 16) Requires, within six months of the effective date of the regulations adopted by CalRecycle, a producer or stewardship organization to develop and submit to CalRecycle a stewardship plan for the collection, transportation, recycling, and safe and proper management, of covered batteries and covered battery-embedded products in the state.
- 17) Requires a stewardship plan for covered batteries and covered battery-embedded products to include multiple standards and elements including:

- a) The names of producers, distributors, importers, manufacturers, brands and covered batteries covered under the stewardship plan;
  - b) A free and convenient collection system for covered batteries in each county of the state that meets specified requirements;
  - c) Collection sites with the necessary equipment, training, signage, safety guidance, and educational materials;
  - d) A funding mechanism to provide sufficient funding for the producer or stewardship organization to implement the plan;
  - e) A description of the process by which covered batteries will be processed and recycled following collection at collection sites;
  - f) Developing strategies, in consultant with the California Environmental Protection Agency's Environmental Justice Task Force and other relevant stakeholders, for collecting covered batteries for recycling in areas and communities that face unique challenges associated with proper waste management, such as poverty, language barriers, and illegal disposal;
  - g) A comprehensive statewide education and outreach program designed to promote participation in the collection and recycling program offered by the stewardship organization; and,
  - h) A description of goals and metrics used to determine the success of the statewide education and outreach program.
- 18) Requires, at least 90 days before submitting a plan to CalRecycle, a producer or stewardship organization to submit its entire proposed plan to DTSC for its review.
- 19) Requires DTSC to review the plan for compliance with state and federal laws and regulations related to its authority, make a determination of compliance or noncompliance, and provide that determination to the producer or stewardship organization within 90 days of receipt of the plan.
- 20) Requires CalRecycle to review the stewardship plan for compliance with the Act and to approve, disapprove, or conditionally approve the plan within 90 days of receipt of the plan.
- 21) Requires, on or before December 31, 2025, a producer or a stewardship organization to have a complete plan approved by CalRecycle in order to be in compliance with the Act.
- 22) Requires, within 270 days of receiving approval of a plan from CalRecycle, a producer or stewardship organization to fully implement its stewardship program.
- 23) Requires a producer or stewardship organization to prepare and submit to CalRecycle, with the submission of a proposed plan, a proposed stewardship program budget for the next five calendar years.
- 24) Requires CalRecycle, within 90 days of receipt of a stewardship program budget, to approve, disapprove, or conditionally approve a stewardship program budget.

- 25) Requires a producer or stewardship organization to annually submit to CalRecycle, and make publicly available on its internet website, an annual report containing specified information on the stewardship program.
- 26) Requires CalRecycle, on or before July 1, 2027, and on or before July 1 each year thereafter, to post on its internet website a list of producers that are in compliance with the Act.
- 27) Authorizes CalRecycle to impose an administrative civil penalty on a producer, stewardship organization, manufacturer, distributor, retailer, importer, recycler, or collection site that is in violation of the Act.
- 28) Repeals, as of January 1, 2027, the Rechargeable Battery Recycling Act of 2006 and the Cell Phone Recycling Act of 2004.

**EXISTING LAW:**

- 1) Enacts the Rechargeable Battery Recycling Act of 2006, which requires every retailer to have a system in place, on or before July 1, 2006, for the acceptance and collection of used rechargeable batteries for reuse, recycling, or proper disposal. (Public Resources Code (PRC) § 42451-42456)
- 2) Enacts the Electronic Waste Recycling Act of 2003 (EWRA), which established a program for consumers to return, recycle, and ensure the safe and environmentally sound disposal of video display devices, such as televisions and computer monitors that are hazardous wastes when discarded. (PRC § 42460 et seq.)
- 3) Enacts the Cell Phone Recycling Act 2004, which requires all retailers of cellular telephones (cell phones) to have in place a system for the collection, reuse, and recycling of cell phones and requires DTSC to provide information on cell phone recycling. (PRC § 42490-42499)
- 4) Creates the Hazardous Waste Control Law (HWCL) and provides DTSC with responsibility for overseeing the management of hazardous waste in California. (Health and Safety Code § 25100 et seq).

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "Many Californians don't realize that all batteries are hazardous waste; and that throwing batteries, and products embedded with batteries, in curbside waste bins poses a threat to recycling facilities and human life. With more of our everyday items running off of batteries, it is imperative that we take swift action to stamp out the risk of devastating fires at our waste facilities and safely allow recovery of the valuable minerals inside batteries. AB 2440 will establish a comprehensive program to address this crisis and protect our communities from battery fires."

*Universal waste:* Universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes include televisions, computers, other electronic devices, batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others.

The hazardous waste regulations (California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11 Section 66261.9) identify seven categories of hazardous wastes that can be managed as universal wastes. Any unwanted item that falls within one of these waste streams can be handled, transported, and recycled following the simple requirements set forth in the universal waste regulations (CCR, Title 22, Division 4.5, Chapter 23) versus the more stringent requirements for hazardous waste.

California's Universal Waste Rule allows individuals and businesses to transport, handle, and recycle certain common hazardous wastes, termed universal wastes, in a manner that differs from the requirements for most hazardous wastes. The more relaxed requirements for managing universal wastes were adopted to ensure that they are managed safely and are not disposed of in the trash. The universal waste requirements are also less complex and easier to comply with, thereby increasing compliance.

*Regulation of batteries:* State law, the HWCL, prohibits the disposal of batteries in the trash or household recycling collection bins intended to receive other non-hazardous waste and/or recyclable materials. Many types of batteries, regardless of size, exhibit hazardous characteristics and are considered hazardous waste when they are discarded. These include single use alkaline and lithium batteries and rechargeable lithium metal, nickel cadmium, and nickel metal hydride batteries of various sizes (AAA, AA, C, D, button cell, 9-Volt, and small sealed lead-acid batteries).

These batteries, sold individually, would be "covered batteries" under AB 2440. However, many batteries are sold within products, such as lithium-ion batteries, which are widely used in portable electronics like laptops, smart phones, digital cameras, game consoles, and cordless power tools. Some of these products would be considered "covered battery-embedded products" under the bill if the battery is not designed to be removed from the product by the consumer.

If batteries end up in the trash or a recycling bin, owners/operators of solid waste transfer stations, municipal landfills, and recycling centers who discover batteries in the waste or recyclable materials are required to remove and manage the batteries separately. The facility that removes the batteries from the municipal solid waste stream or recyclable materials becomes the generator of the hazardous waste batteries and must comply with hazardous waste management regulations. Facilities that do not properly manage hazardous waste may be subject to regulatory enforcement and may be liable for monetary penalties.

Depending on the type of battery and applicable management requirements, batteries must be sent to a facility permitted to accept hazardous waste batteries, universal wastes, or spent lead acid batteries. Only facilities that have a DTSC permit or other type of authorization to treat, store, or dispose of hazardous wastes may accept hazardous waste batteries. Persons that do not have a DTSC permit may accept and store universal waste batteries and spent lead acid batteries if they operate according to the regulations specifically tailored for those types of batteries.

*California Rechargeable Battery Recycling Act:* Most portable electronic devices use rechargeable batteries, and millions of rechargeable batteries are sold in California each year. In 2005, to help promote proper disposal of rechargeable batteries by the public, the Governor signed the California Rechargeable Recycling Act AB 1125 (Pavley, Chapter 572, Statutes of

2005), which requires retailers to have a mechanism to accept all rechargeable batteries from consumers for recycling.

Large chain supermarkets and persons (including corporations or franchisees) who have less than one million dollars annually in gross sales are not subject to the law's requirements. Also, sales of rechargeable batteries that are contained in, or packaged with, a battery-operated device are not subject to this law. However, a retailer selling replacement batteries for such devices must comply.

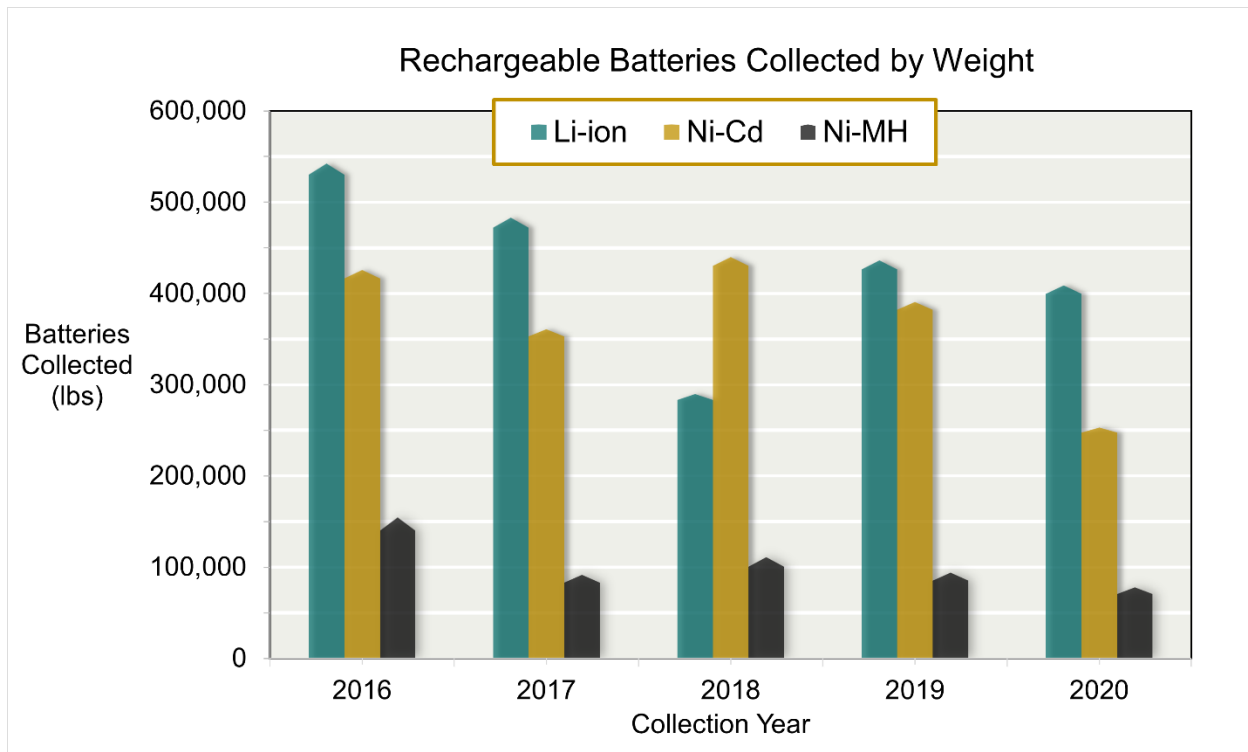
To track how effective this program is, the law requires DTSC to survey battery handling and/or recycling facilities and post on its website, by July 1 of each year, the estimated amount, by weight, of each type of rechargeable batteries returned for recycling in California during the previous calendar year. DTSC receives data voluntarily submitted by the major California battery recyclers to estimate how many rechargeable batteries, by type (e.g., nickel-cadmium, nickel metal hydride, etc.), are collected in each calendar year.

According to DTSC's website, the following are approximate quantities of rechargeable batteries collected for recycling in California in 2020:

- 408,823 pounds of lithium ion batteries
- 252,969 pounds of nickel cadmium batteries
- 77,766 pounds of nickel metal hydride batteries
- 4,810,578 pounds of small sealed lead acid batteries

It is difficult to accurately estimate the rechargeable batteries collected for recycling in California due to the following reasons: some battery handlers and recyclers do not track the state from which batteries are collected; batteries contained within electronic devices that are recycled (e.g., cell phones and laptop computers) are not counted separately but may represent a significant portion of the total quantity; there may be duplicate data as some battery handlers collect batteries from other collection points; and, California law does not require battery handlers or recyclers to report the number or weight of batteries collected for recycling.

According to DTSC's website, below are the amount of batteries collected from 2016-2020. On average the amount of each battery type collected is trending downward.



*Product stewardship (stewardship):* Product stewardship, also known as Extended Producer Responsibility (EPR), is a strategy to place a shared responsibility for end-of-life product management on the producers, and all entities involved in the product chain, instead of the general public. Product stewardship encourages product design changes that minimize a negative impact on human health and the environment at every stage of the product's lifecycle. This allows the costs of treatment and disposal to be incorporated into the total cost of a product. It places primary responsibility on the producer, or brand owner, who makes design and marketing decisions. It also creates a setting for markets to emerge that truly reflect the environmental impacts of a product, and to which producers and consumers respond. CalRecycle has developed a product stewardship framework and checklists to guide statutory proposals that would allow CalRecycle and other stakeholders to implement product stewardship programs.

*Current state stewardship programs:* There are several statewide Stewardship programs in California, all of which are overseen by CalRecycle. They include: carpet materials management, paint product management, mattress product management, and home-generated pharmaceutical waste and sharps waste.

*Successful collection of batteries remains out of reach:* Even though there are laws on the books to require the collection of some rechargeable batteries, recent information suggests that collection efforts are not succeeding. As a result, these hazardous waste batteries are ending up in the solid waste stream where they can be damaged or crushed which can result in fires in solid waste trucks and solid waste facilities. The fact that current collection efforts are falling short does not seem to be disputed.

*How to improve collection of batteries?:* Some state programs for collecting waste, such as those programs for collecting electronic waste, enact a fee on the product and have the state setup a program for the collection of that waste. Other programs, such as EPR programs, place the requirements on those that produce the waste that is resulting in environmental harm. AB 2440 establishes an EPR program for batteries and battery embedded products in order to improve the collection and recycling of these batteries. While the bill does create a new program there is already some collection and recycling infrastructure for batteries (you may have seen those plastic tubes with batteries at a retailer or other location) and it is likely that the EPR program will work to greatly improve and expand that existing infrastructure.

*Complex program, many details to work out:* While AB 2440 provides for a very detailed EPR program, at this stage in the legislative process there is still more work to be done. The author and stakeholders have been involved in discussions that will continue, assuming the bill continues to move through the process, and are likely centered around a few key points. Likely the most challenging aspect going forward will reside with the definitions, specifically, the definition of a producer (this is ultimately who is responsible for the program). This bill includes producers of the batteries, as well as those that make products that contain batteries, so this will be the subject of ongoing discussions. Additionally, once the "who" is solved, there will likely be further discussions around the elements of the plan. The elements of the plan are important because it sets the foundation for the EPR program and ideally sets up the program for success.

*Arguments in Support:* According to RethinkWaste, California Product Stewardship Council, and Californians Against Waste,

"Due to the hazardous metals and corrosive materials that batteries contain, California classifies batteries as hazardous waste and bans them from solid waste landfills. When consumers are done with their loose batteries and portable electronics, they must collect, sort, and ultimately find an appropriate disposal option. Unfortunately, California currently lacks a streamlined and convenient collection and recycling system for batteries and batteries embedded in products.

Because of a combination of increased consumption and a lack of convenient disposal options, higher levels of toxic batteries and products are entering the waste stream. When improperly discarded, lithium-ion (Li-ion) batteries in particular pose serious fire, health, and safety hazards. The influx of improperly disposed of Li-ion batteries into the waste stream has resulted in an alarming number of materials recovery facilities (MRFs), waste collection trucks, and landfills experiencing fires.

Oftentimes, Li-ion batteries are embedded in and irremovable from products, including portable electronics, such as phones, laptops, and power tools. When loose Li-ion batteries or Li-ion batteries embedded in products experience intense physical pressure – which is common in California's waste processing system – the batteries can spark a fire or even explode.

For the average consumer, it can often be difficult to distinguish between chemistries of batteries, such as alkaline, nickel cadmium, and Li-ion. Therefore, to ensure the proper disposal of all battery chemistries and reduce the fire and safety risk, AB 2440 would require free collection for most loose and product-embedded batteries at convenient locations across the state. AB 2440 would also encourage manufacturers to be more responsible for the life

cycle of their products by creating a producer-run program. Lastly, AB 2440 would support a circular economy by battery recycling to the extent that is economically and technically feasible.

Manufacturers must be more responsible for the products they create – both loose batteries and ones embedded in other products – if we are going to protect our workers, communities, and waste management infrastructure from battery-related fires."

*Arguments in Opposition:* According to the Toy Association,

"While we understand the important of battery recycling, we believe the recycling structure created by this bill is overly burdensome, if not unworkable.

While the goal of extended producer responsibility is to place mandates on the producer AB 2440 defines non-battery producers, as producers. Manufacturers of consumer products would be mandated to fund a new state stewardship program for batteries - products our companies do not manufacture. And no exclusions are provided for consumer product manufacturers who purchase covered batteries from a battery manufacturer who is already paying into a stewardship program. In sum, we believe that the definition of producer needs to capture the actual manufacturer of the battery as the primary responsible entity.

This legislation proposes a massive new program that includes collection and recycling of single-use batteries, rechargeable batteries and consumer products that contain batteries which will require different procedures for collection and different processes, equipment, etc. for recycling. Consumer products may vary significantly in their materials and components which would need to be recycled along with the batteries. There should be some research into the benefits and costs of this type of extended producer responsibility program structure.

We believe the structure of this extended producer responsibility program needs further vetting and we urge you to oppose moving the bill forward."

*Double-referral:* Should this bill pass this Committee, it will be re-referred to the Assembly Natural Resources Committee.

*Related legislation:*

- 1) SB 1215 (Newman). Creates the Responsible Battery Recycling Act (Act) of 2022, which requires producers of covered batteries and covered battery-embedded products, as defined, to establish a stewardship program for the collection and recycling of covered batteries and covered battery-embedded products. This bill is pending action in the Senate Environmental Quality Committee.
- 2) SB 289 (Newman, 2021). Would have enacted the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2021, which would have required the producers of batteries and battery-embedded products to establish a stewardship program for those products, with full implementation on or before June 30, 2025. This bill held on the suspense file in the Senate Appropriations Committee.

- 3) AB 1509 (Mullin, 2019). Would have established the Lithium-Ion Battery Recycling Program within CalRecycle which would have required manufacturers of lithium-ion batteries to provide convenient collection, transportation, and disposal of lithium-ion batteries. This bill was not heard in the Senate Environmental Quality Committee and subsequently died on file.
- 4) AB 2832 (Dahle, Chapter 822, Statutes of 2018). Requires the Secretary for the California Environmental Protection Agency to convene a research group to review and advise the Legislature on policies pertaining to the recovery and recycling of lithium-ion vehicle batteries sold with motor vehicles in the state.
- 5) SB 212 (Jackson, Chapter 1004, Statutes of 2018). Requires entities that sell drugs or sharps in the state to individually, or with other entities, develop and implement a statewide home-generated drug stewardship plan, or a home-generated sharps waste stewardship plan, or both, for the collection and proper disposal of home-generated drug and sharps waste. Requires CalRecycle to oversee and enforce each stewardship plan.
- 6) AB 1125 (Pavley, Chapter 572, Statutes of 2005). Enacts the Rechargeable Battery Recycling Act of 2006, and requires retailers of rechargeable batteries, by July 1, 2006, to establish a system for accepting rechargeable batteries for reuse, recycling, or proper disposal.
- 7) AB 2901 (Pavley, Chapter 891, Statutes of 2004). Enacts the Cell Phone Recycling Act of 2004 and requires all retailers of cellular telephone to have in place a system for the collection, reuse and recycling of cell phones. Requires DTSC to provide information on cell phone recycling.
- 8) SB 20 (Sher, Chapter 526, Statutes of 2003). Enacts the Electronic Waste Recycling Act of 2003 to provide for the convenient recycling of covered electronic devices in California.

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

California Product Stewardship Council (Co-Sponsor)  
 Californians Against Waste (Co-Sponsor)  
 South Bayside Waste Management Authority (SBWMA ) DBA RethinkWaste (Co-Sponsor)  
 California Resource Recovery Association  
 California Waste Haulers Council  
 Central Contra Costa Sanitary District  
 City of Thousand Oaks  
 Delta Diablo  
 Los Angeles County Sanitation District  
 Monterey Regional Waste Management District  
 Napa Recycling & Waste Services  
 Recyclesmart  
 Republic Services - Western Region  
 Republic Services INC.  
 Rural County Representatives of California (RCRC)

Sea Hugger  
Stopwaste  
Western Placer Waste Management Authority (WPWMA)  
Zero Waste Company

**Opposition**

Association of Home Appliance Manufacturers  
Toy Industry Association

**Analysis Prepared by:** Josh Tooker / E.S. & T.M. /