

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 691 Recycling of Covered Electronic Devices

SPONSOR(S): Basabe and others

TIED BILLS: IDEN./SIM. **BILLS:** CS/SB 1030

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Agriculture, Conservation & Resiliency Subcommittee	16 Y, 0 N	Gawin	Moore
2) Agriculture & Natural Resources Appropriations Subcommittee			
3) Infrastructure Strategies Committee			

SUMMARY ANALYSIS

Electronic products are made from valuable resources and materials, including metals, plastics, and glass, all of which require energy to mine and manufacture. Recycling consumer electronics reduces the amount of raw materials mined and energy used to produce new products, as well as the packaging used to transport them. Florida has no laws or regulations that apply specifically to discarded electronic products. However, the Department of Environmental Protection (DEP) has provided guidelines for the disposal of electronics based on rules adopted by the Environmental Protection Agency.

The bill establishes the statewide Covered Electronic Device Recovery Program (Program) within DEP and authorizes DEP to use funds from the Solid Waste Management Trust Fund to administer the Program. The purpose of the Program is to create a statewide plan for the recycling of covered electronic devices.

By January 1, 2025, the bill requires each county to submit a plan to DEP for ensuring the county will appropriately dispose of covered electronic devices at a permitted reclamation facility. Effective January 1, 2026, any person who owns or operates an industrial, institutional, or commercial facility in the state must dispose of that facility’s covered electronic devices in a permitted reclamation facility. Effective January 1, 2028, the bill makes it unlawful for any person to dispose of covered electronic devices anywhere that is not a permitted reclamation facility.

The bill specifies that a person who does not appropriately dispose of a covered electronic device is liable for damages and subject to a civil penalty for each offense in the amount of up to \$15,000 per offense. The penalty may be waived if the person has previously taken appropriate corrective action to remedy the actual damages, if any, caused by the unlawful act or rule violation.

The bill requires DEP to deposit any funds received through the Program into the Solid Waste Management Trust Fund. Upon appropriation, DEP may use the funds to provide grants to local governments and other public and private entities to develop and operate regional covered electronic device recycling programs and for administrative costs and other authorized expenses necessary to carry out the Program.

The bill may have an indeterminate negative fiscal impact on the state and local governments.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Recycling Electronic Devices

Electronic products are made from valuable resources and materials, including metals, plastics, and glass, all of which require energy to mine and manufacture.¹ Recycling consumer electronics reduces the amount of raw materials mined and energy used to produce new products, as well as the packaging used to transport them.²

According to a 2006 estimate by the United States Geological Survey (USGS), recycling one million laptops saves the energy equivalent to the electricity used by more than 3,500 homes in a year.³ In addition, for every million cell phones recycled, 35,000 pounds of copper, 772 pounds of silver, 75 pounds of gold, and 33 pounds of palladium can be recovered.⁴ These recovered materials can be used in new products.⁵

Some electronic devices contain cathode ray tubes (CRTs). CRT displays were widely used in televisions and computer monitors before being replaced by flat panel displays.⁶ While some CRT displays are still in use today, very few new CRTs are being produced as electronics manufacturers follow demand for flat panel displays. As consumers and businesses replace their CRT monitors and televisions, electronics recyclers receive the discarded CRT products. Unfortunately, the market for recycled CRT glass has become limited and costly, making CRT glass recycling a challenge to electronic scrap recyclers. As a result, some electronics recyclers and many second-hand stores such as Goodwill and the Salvation Army no longer accept CRT products.⁷

Certified Electronics Recyclers

The Environmental Protection Agency (EPA) recommends using certified electronics recyclers to manage unwanted used electronics.⁸ Electronics recyclers can become certified by demonstrating to an accredited, independent third-party auditor that they meet specific standards to safely recycle and manage electronics. There are two accredited certification standards: the Responsible Recycling Standard for Electronics Recyclers and the e-Stewards Standard for Responsible Recycling and Reuse of Electronic Equipment. Both programs advance best management practices and provide a way to assess the environmental, worker health and safety, and security practices of entities managing used electronics. Once certified, continual oversight by the independent accredited certifying body holds the recycler to the particular standard.⁹

Rare-Earth Metals

Rare-earth metals are a set of 17 elements, including scandium, yttrium, and praseodymium. While rare-earth metals are abundant in the earth's crust, they appear in low concentrations in minerals and

¹ Environmental Protection Agency (EPA), *Electronics Donation and Recycling*, <https://www.epa.gov/recycle/electronics-donation-and-recycling> (last visited Mar. 23, 2023).

² EPA, *Secret Life of a Smart Phone*, https://www.epa.gov/sites/default/files/2015-06/smartphone_infographic_700.jpg (last visited Mar. 23, 2023).

³ *Id.*

⁴ *Id.*; USGS, *Recycled Cell Phones – A Treasure Trove of Valuable Metals*, available at <https://pubs.usgs.gov/fs/2006/3097/fs2006-3097.pdf>. (last visited Mar. 23, 2023).

⁵ EPA, *Secret Life of a Smart Phone*, https://www.epa.gov/sites/default/files/2015-06/smartphone_infographic_700.jpg (last visited Mar. 23, 2023).

⁶ DEP, *Electronics Waste*, <https://floridadep.gov/waste/permitting-compliance-assistance/content/electronics-waste> (last visited Mar. 23, 2023).

⁷ *Id.*

⁸ EPA, *Certified Electronics Recyclers*, <https://www.epa.gov/smm-electronics/certified-electronics-recyclers> (last visited Mar. 23, 2023).

⁹ *Id.*

are difficult to separate from other elements, which is what makes them rare.¹⁰ These metals are valued for their conductive and magnetic properties¹¹ and have a wide variety of applications, ranging from magnets, lasers, GPS satellites, computer components, lighting, X-ray and MRI scanning systems, and other electronics.¹² In addition to the electronics sector, the U.S. defense industry relies heavily on rare earth elements to produce weapon guidance systems, jet engines, sonar devices, and laser weapons.¹³

Rare-earth metals are mined by digging vast open pits in the ground, which can contaminate the environment and disrupt ecosystems. When poorly regulated, mining can produce wastewater ponds filled with acids, heavy metals and radioactive material that might leak into groundwater. Processing the raw ore into a form useful to make magnets and other tech is a lengthy effort that takes large amounts of water and potentially toxic chemicals, and produces voluminous waste.¹⁴ Recycling rare-earth metals is one alternative to mining. Adding recycled rare-earth metals as a new source to the supply chain is expected to reduce environmental contamination and energy costs associated with their primary mining and separations.¹⁵ Though the cost of re-separation and purification may be a limitation on recycling rare-earth metals,¹⁶ some companies are already using this technology.¹⁷

China is the largest producer of rare-earth metals, and accounted for 74 percent of the rare-earth metals imported to the U.S. in 2021.¹⁸ In 2022, the U.S. imported an estimated \$200 million of rare-earth compounds and metals, a 25 percent increase from 2021.¹⁹

Electronic Waste Regulations and the CRT Rule

Florida has no laws or regulations that apply specifically to discarded electronic products. However, the Department of Environmental Protection (DEP) has provided guidelines for the disposal of electronics.²⁰ These guidelines are based on the CRT rule²¹ issued by the EPA in 2006 and adopted by DEP in 2008.²² The CRT rule divides electronic products into two groups: products that contain a CRT, such as televisions and computer monitors, and products that do not contain a CRT, such as desktop and portable computers, flat panel televisions and computer monitors, and cellular phones.²³ Used CRTs discarded by households are considered “household hazardous waste” and are exempt from hazardous waste regulations.²⁴ The CRT Rule is intended to encourage recycling and reuse of CRTs and CRT glass. The rule streamlines management requirements for recycling of used CRTs and glass removed from CRTs by excluding these materials from hazardous waste regulation if certain conditions are met.²⁵

¹⁰ Department of Energy (DOE), *Rare Earth Elements*, <https://www.energy.gov/fecm/rare-earth-elements#:~:text=Rare%20earth%20oxides%20of%20gadolinium,samarium%2C%20lanthanum%2C%20and%20neodymium>. (last visited Mar. 23, 2023).

¹¹ USGS, *The Rare-Earth Elements- Vital to Modern Technologies and Lifestyles*, available at <https://pubs.usgs.gov/fs/2014/3078/pdf/fs2014-3078.pdf> (last visited Mar. 23, 2023).

¹² *Id.*

¹³ United States Government Accountability Office, *Rare Earth Materials in the Defense Supply Chain*, available at <https://www.gao.gov/assets/gao-10-617r.pdf> (last visited Mar. 23, 2023).

¹⁴ Science News, *Rare earth mining may be key to our renewable energy future. But at what cost?*, <https://www.sciencenews.org/article/rare-earth-mining-renewable-energy-future> (last visited Mar. 23, 2023).

¹⁵ DOE, *Rare Earth Recycling*, <https://science.osti.gov/bes/Highlights/2017/BES-2017-03-c> (Mar. 23, 2023).

¹⁶ *Id.*

¹⁷ See Apple, *Product Environmental Report*, https://www.apple.com/environment/pdf/products/iphone/iPhone_12_PER_Oct2020.pdf (last visited Mar. 23, 2023).

¹⁸ United States Geological Survey (USGS), *Mineral Commodity Summaries: Rare Earths*, 1 (2023), available at <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-rare-earth.pdf>. (last visited Mar. 23, 2023).

¹⁹ *Id.*

²⁰ DEP, *Electronics Waste*, <https://floridadep.gov/waste/permitting-compliance-assistance/content/electronics-waste> (last visited Mar. 23, 2023).

²¹ 40 CFR ss. 260, 261, and 271.

²² DEP, *Electronics Waste*, <https://floridadep.gov/waste/permitting-compliance-assistance/content/electronics-waste> (last visited Mar. 23, 2023).

²³ *Id.*

²⁴ 40 CFR 261.4(b)(1). See also EPA, *Frequent Questions About the Regulation of Used Cathode Ray Tubes (CRTs) and CRT Glass*, no. 18, <https://www.epa.gov/hw/frequent-questions-about-regulation-used-cathode-ray-tubes-crts-and-crt-glass#2> (last visited Mar. 23, 2023).

²⁵ *Id.*

Effect of the Bill

The bill defines “covered electronic device” to mean a computer, portable computer, computer monitor, or television, whether it has a cathode ray tube or flat panel based on any technology, with a screen size greater than four inches measured diagonally. The term does not include an electronic device that is:

- A part of a motor vehicle or any component part of a motor vehicle assembled by or for a vehicle manufacturer or franchised dealer, including but not limited to, replacement parts for use in a motor vehicle;
- Functionally or physically a part of a larger piece of equipment designed and intended for industrial, commercial, or medical setting, including but not limited to, diagnostic, monitoring, or control equipment;
- Contained within a clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier, or air purifier; or
- A telephone of any type.

The bill defines “reclamation facility” to mean a site permitted by DEP where equipment is used to handle, process, disassemble, dismantle, shred, recapture, or store recoverable materials.

The bill establishes the statewide Covered Electronic Device Recovery Program (Program) within DEP and authorizes DEP to use funds from the Solid Waste Management Trust Fund to administer the Program. The purpose of the Program is to create a statewide plan for the recycling of covered electronic devices. When creating the statewide plan, the bill requires DEP to consider the following:

- Existing collection and consolidation infrastructure for collecting covered electronic devices;
- Convenience standards for each county or solid waste authority serving one or more counties;
- County population statistics and data of residents; and
- Administrative costs and other authorized expenses necessary to prevent the disposal of covered electronic devices in landfills.

By January 1, 2025, the bill requires each county to submit a plan to DEP for ensuring the county will appropriately dispose of covered electronic devices at a permitted reclamation facility. Effective January 1, 2026, any person who owns or operates an industrial, institutional, or commercial facility in the state must dispose of that facility’s covered electronic devices in a permitted reclamation facility. Effective January 1, 2028, the bill makes it unlawful for any person to dispose of covered electronic devices anywhere that is not a permitted reclamation facility.

The bill specifies that a person who does not appropriately dispose of a covered electronic device is liable for damages and subject to a civil penalty for each offense in an amount of up to \$15,000 per offense. The penalty may be waived if the person has previously taken appropriate corrective action to remedy the actual damages, if any, caused by the unlawful act or rule violation.

The bill requires DEP to deposit any funds received through the Program into the Solid Waste Management Trust Fund and to account for such funds separately within the trust. Upon appropriation, DEP may use the funds to provide grants to local governments and other public and private entities to develop and operate regional covered electronic device recycling programs and for administrative costs and other authorized expenses necessary to carry out the Program.

By July 1, 2024, the bill requires DEP to adopt rules to implement the Program. The rules must include:

- Criteria and procedures for obtaining a reclamation facility permit.
- Standards for reclamation facilities and associated collection centers and standards for the storage of covered electronic devices.
- Requirements for the collection of data on the amounts of precious metals recovered through the program.

B. SECTION DIRECTORY:

Section 1. Creates s. 403.71853, F.S., related to recycling of covered electronic devices.

Section 2. Provides an effective date of July 1, 2023.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

The bill may have an indeterminate negative fiscal impact on DEP associated with creating and implementing the Program.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

The bill may have an indeterminate negative fiscal impact on counties associated with developing plans pursuant to the bill.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

The county/municipality mandates provision of Art. VII, s. 18 of the Florida Constitution may apply because this bill may require counties to expend funds to develop plans to ensure the county will appropriately dispose of covered electronic devices at a permitted reclamation facility; however, an exemption may apply because the law would likely have an insignificant fiscal impact.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill requires DEP to adopt rules related to developing the Program.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

None.

