

SENATE JUDICIARY COMMITTEE
Senator Thomas Umberg, Chair
2023-2024 Regular Session

AB 1659 (Gabriel)
Version: June 28, 2023
Hearing Date: July 11, 2023
Fiscal: Yes
Urgency: No
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SUBJECT

Sale of small electronic devices: charging devices

DIGEST

This bill requires small electronic devices, such as smartphones, tablets, and laptops, manufactured after 2025 to be universally chargeable with a USB Type-C cable.

EXECUTIVE SUMMARY

By the end of 2024, all mobile phones, tablets and cameras sold in the European Union will have to be equipped with a USB Type-C charging port. The law extends to laptops in 2026. The law also requires clear labeling regarding the charging characteristics of new devices and options for consumers to buy these electronic devices without buying new chargers. India has enacted a similar law, requiring mobile devices to be universally USB-C chargeable. Such laws have garnered wide support for both their consumer protection benefits, consumers no longer need to buy a separate charger for every device, but also for the environmental benefits. For instance, it is estimated that unused and discarded chargers add up to 11,000 metric tons of e-waste annually in the EU alone.

To achieve all of these benefits, this bill follows the lead of the EU and makes USB Type-C charging – currently the most common charging method – the single charging standard for small electronic devices. This includes smartphones, tablets, laptops, and other portable devices sold in California and manufactured for the first time, and first sold in California, on or after January 1, 2026. Similar labeling requirements and other consumer protections are included in the bill.

This bill is author-sponsored and supported by California Environmental Voters. It is opposed by the Consumer Technology Association. The bill passed out of the Senate Business, Professions and Economic Development Committee on a vote of 9 to 2.

PROPOSED CHANGES TO THE LAW

Existing law:

- 1) Defines “smartphone” as a cellular radio telephone or other mobile voice communications handset device with all of the following features:
 - a) utilizes a mobile operating system;
 - b) possesses the capability to utilize mobile software applications, access and browse the internet, utilize text messaging, utilize digital voice service, and send and receive email;
 - c) has wireless network connectivity; and
 - d) is capable of operating on a long-term evolution network or successor wireless data network communication standards. (Bus. & Prof. Code § 22761(a)(1)(A).)
- 2) Requires smartphones manufactured on or after July 1, 2015 and sold in California to include a technological solution to render the phone inoperable. (Bus. & Prof. Code § 22761(b).)

This bill:

- 1) Prohibits a manufacturer from selling a small electronic device manufactured for the first time, and first sold in California, on or after January 1, 2026 (“small electronic device”), that can be charged via a wired cable unless the device meets all of the following criteria:
 - a) The device is equipped with a USB Type-C receptacle that remains accessible and operational at all times.
 - b) The device can be charged with a USB Type-C cable and connector.
 - c) If the device can be charged using wired charging at voltages higher than five volts or current higher than three amperes or powers higher than 15 watts, the device allows for full USB Power Delivery functionality, irrespective of the charging device used.
- 2) Defines “small electronic device” as a smartphone (as defined), other cellular radio telephone or mobile voice communications handset device, tablet, digital camera, headphone, headset, handheld video game console, portable speaker, e-reader, keyboard, mouse, portable navigation system, earbud, laptop, or other similar device that is used for audio, video, or text communication or any other type of portable computer or computer-like instrument that is capable of being charged. It also includes any charging station or docking cradle necessary to charge the instrument.
- 3) Requires a wholesaler or retailer, if the wholesaler or retailer offers to sell a small electronic device, together with a charging device, to also offer to sell that small

electronic device without a charging device. This does not require them to open the original packaging provided by the manufacturer of a small electronic device and remove a charging device from that packaging in order to comply.

- 4) Prohibits a wholesaler or retailer from offering to sell a small electronic device to consumers or other end users unless they provide information as to whether a charging device is included in the same package as the small electronic device, subject to the following requirements:
 - a) If a charging device is included with the small electronic device, the following information:
 - i. The minimum power that a charging device needs to supply to charge the device.
 - ii. The maximum power that a charging device needs to supply to achieve the maximum charging speed of the device.
 - b) Whether the small electronic device supports USB Power Delivery.
- 5) Requires the information above to be printed on the packaging or affixed to the packaging as a sticker.
- 6) Provides that where a wholesaler or retailer makes an offer to sell a small electronic device through a remote offering, including a catalog, electronically through the internet, or other similar means that does not involve an in-store sale, the wholesaler or retailer shall include the information in the location where other similar product specifications are displayed.
- 7) Requires a wholesaler or retailer to provide, as specified, an end user to whom the wholesaler or retailer offers to sell a small electronic device, the following information, as applicable:
 - a) A description of the power requirements of the wired charging devices that can charge the small electronic device, including the minimum power required to charge the small electronic device and the power required for maximum charging speed of the small electronic device in watts. The description shall be in substantially the following form:

“The power delivered by the charger must be between min ____ watts required by the small electronic device, and max ____ watts in order to achieve the maximum charging speed.”
 - b) If the small electronic device is capable of being charged using wired charging at voltages higher than five volts or current higher than three amperes or powers higher than 15 watts, a description of the specifications relating to those charging capabilities, including both of the following, as applicable:
 - i. The text “USB PD fast charging.”
 - ii. The name of any other supported charging protocol.

- 8) Provides that it does not apply to the sale of any of the following:
 - a) A secondhand small electronic device.
 - b) A laptop sold before July 1, 2026.
 - c) A small electronic device that is of a size such that a USB Type-C receptacle cannot be integrated with the device without materially degrading the technical capabilities of the device other than power delivery.
- 9) Subjects a manufacturer, wholesaler, or retailer in violation to an action for relief brought exclusively by the Attorney General, a district attorney, a county counsel, or a city attorney. A prevailing plaintiff is entitled to injunctive relief and reasonable attorney's fees and costs.
- 10) Prohibits waiver and includes a severability clause.

COMMENTS

1. Universal chargers

As mentioned, the European Union has recently passed a landmark law regarding universal charger interoperability:

Following Parliament's approval, EU consumers will soon be able to use a single charging solution for their electronic devices.

By the end of 2024, all mobile phones, tablets and cameras sold in the EU will have to be equipped with a USB Type-C charging port. From spring 2026, the obligation will extend to laptops. The new law, adopted by plenary on Tuesday with 602 votes in favour, 13 against and 8 abstentions, is part of a broader EU effort to reduce e-waste and to empower consumers to make more sustainable choices.

Under the new rules, consumers will no longer need a different charger every time they purchase a new device, as they will be able to use one single charger for a whole range of small and medium-sized portable electronic devices.

Regardless of their manufacturer, all new mobile phones, tablets, digital cameras, headphones and headsets, handheld videogame consoles and portable speakers, e-readers, keyboards, mice, portable navigation systems, earbuds and laptops that are rechargeable via a wired cable, operating with a power delivery of up to 100 Watts, will have to be equipped with a USB Type-C port.

All devices that support fast charging will now have the same charging speed, allowing users to charge their devices at the same speed with any compatible charger.¹

The European Parliament estimates that the law will lead to a drastic increase in the re-use of chargers, helping consumers save up to €250 million from unnecessary charger purchases. The environmental impact is also paramount, as estimates suggest that disposed of and unused chargers account for 11,000 tons of e-waste each year in the EU. Globally, that number is estimated at 54,000 metric tons of chargers wasted annually.

The law includes additional protections for consumers to effectuate the goals of the law: “Dedicated labels will inform consumers about the charging characteristics of new devices, making it easier for them to see whether their existing chargers are compatible. Buyers will also be able to make an informed choice about whether or not to purchase a new charging device with a new product.”

India has already followed suit with a law of its own. Mobile devices in India will be required to adopt USB Type-C as the standard charging port for electronic products by March 2025.²

2. Bringing the universal charger to California

This bill seeks to achieve these same goals by also requiring that all small electronic devices sold in California and made after 2026 utilize a USB-C charging interface.

Defines “small electronic device” as a smartphone (as defined), other cellular radio telephone or mobile voice communications handset device, tablet, digital camera, headphone, headset, handheld video game console, portable speaker, e-reader, keyboard, mouse, portable navigation system, earbud, laptop, or other similar device that is used for audio, video, or text communication or any other type of portable computer or computer-like instrument that is capable of being charged. It also includes any charging station or docking cradle necessary to charge the instrument.

This bill prohibits a manufacturer from selling a small electronic device manufactured for the first time, and first sold in California, on or after January 1, 2026 (“small electronic device”), that can be charged via a wired cable unless the device meets all of the following criteria:

¹ *Long-awaited common charger for mobile devices will be a reality in 2024* (Apr. 10, 2022) European Parliament News, <https://www.europarl.europa.eu/news/en/press-room/20220930IPR41928/long-awaited-common-charger-for-mobile-devices-will-be-a-reality-in-2024#:~:text=Following%20Parliament's%20approval%2C%20EU%20consumers,obligation%20will%20extend%20to%20laptops>. All internet citations are current as of July 2, 2023.

² Jess Weatherbed, *India mandates USB-C on phones, turns focus to wearables* (Dec. 29, 2022) The Verge, <https://www.theverge.com/2022/12/29/23530650/india-usbc-charging-standard-2025-iphone-eu>.

- The device is equipped with a USB Type-C receptacle that remains accessible and operational at all times.
- The device can be charged with a USB Type-C cable and connector.
- If the device can be charged using wired charging at voltages higher than five volts or current higher than three amperes or powers higher than 15 watts, the device allows for full USB Power Delivery functionality, irrespective of the charging device used.

Similar to protections in the EU law, the bill requires wholesalers and retailers to provide options to buy an electronic device without purchasing a new charger, except as provided. Also similar to the EU law, the bill establishes disclosure requirements that make clear to consumers whether the device comes with a charger, and if it does, the specifications on the power range needed to charge the device.

The bill carves out secondhand and certain smaller devices and delays application to laptops to those sold after July 1, 2026.

Violations are subject to enforcement by the Attorney General, a district attorney, a county counsel, or a city attorney. However, a prevailing plaintiff is only entitled to injunctive relief and reasonable attorney's fees and costs.

The author and supporters identify the prospective benefits of standardizing USB Type-C charging across small electronic devices sold in California:

- Reduced electronic waste, particularly from chargers for obsolete or discarded devices.
- Cheaper prices for those who purchase small electronic devices without bundled chargers.
- Better consumer comprehension of the power requirements of the small electronic devices they purchase.
- The ability to replace lost or broken chargers even if the original manufacturer goes out of business.
- Reduced market fragmentation, as device manufacturers are no longer able to lock customers into their proprietary charging technologies.

By joining the other countries that have made this change, this bill will arguably help reduce the amount of e-waste produced by unnecessary or unused charging cables and improve the consumer experience.

3. Stakeholder positions

According to the author:

Most Californians are no strangers to the junk drawer or bin full of miscellaneous chargers and cables caused by each device seemingly

having a unique charging port. This existing system has contributed to a variety of negative impacts on consumers and the environment including generating thousands of tons of e-waste each year and causing unnecessary costs and inconvenience caused by not having a compatible charger. In recognition of this, The European Union recently adopted regulations requiring small electronic devices to utilize a standardized charging interface starting in 2024. Other large countries, such as India, have done the same.

AB 1659 seeks to achieve this same goal by requiring that all small electronic devices sold in California and made after 2026 utilize a USB-C charging interface. By joining the other countries that have made this change, this bill will help reduce the amount of e-waste produced by unnecessary or unused charging cables and improve the consumer experience, saving them time and money.

Writing in support, California Environmental Voters argues:

By establishing a common charging interface, California can take the lead nationally to ensure that one charger can be used across all small electronic devices, saving consumers time, money, and effort. Additionally, it will help to combat the increasingly concerning problem of e-waste by reducing the number of cables produced, left unused, or discarded.

The Consumer Technology Association writes in opposition:

AB 1659 proposes to eliminate different charging options by mandating that virtually all small electronic devices use USB Type-C charging capabilities meeting "the 2021 international standards and specifications of the International Electrotechnical Commission for USB Type-C cables and connectors in 'International Standard IC 62680, Part 1-3.'" This requirement will lock in a single technology for charging small electronic devices in California and, for the reasons discussed below, would harm consumers and increase electronic waste.

First, not all USB Type-C charges are equal. They have varying charging capabilities, particularly for charging speed. Consumers previously familiar with other types of chargers invariably will experiment with different USB Type-C chargers until they find one that suits their needs. This will increase consumer costs.

Second, many USB Type-C chargers will be discarded during the aforementioned experimentation process because they do not meet

consumer expectations. The law also will force consumers that currently rely on non-USB Type-C chargers to purchase new chargers. This will make old chargers that could otherwise be used to charge a new device obsolete and ripe for disposal, thus creating a new stream of electronic waste that could have been avoided.

Third, as the Impact Assessment Study to Assess Unbundling of Chargers prepared for the European Commission by Ipsos Mori noted, proposals such as those contained in AB 1659 (and the EU Directive) should not produce an "overly dramatic" reduction in the number of chargers consumers purchase,* and therefore should not significantly reduce electronic waste.

To avoid these pitfalls, any mandate for harmonization should focus on the power supply side rather than on-device receptacle requirements. There is already general convergence to USB Type-C and IEC 63002 on the charging brick/power supply.

They further argue that the bill should not be passed because it is not technology neutral, will require technology that could quickly become outdated, and will curb innovation.

In response to legitimate concerns regarding innovation and locking in one technology as the universal standard, the author argues:

While the opposition may raise concerns that regulation will stifle innovation, we would push back and argue that some regulation is necessary. The existence of a variety of different charging interfaces across small electronic devices leads to increased waste and locks consumers into technological ecosystems that can limit their ability to switch to new devices or purchase from companies other than the same one that sold them the device. Although we recognize that some consolidation has occurred, the current state of the market would suggest this is the perfect time to introduce this standard. It is clear that USB-C is the interface best suited for this change, and should the industry coalesce around a new standard, then we are confident this body would not stand in the way of updating the standards to reflect this.

In addition, the author has committed to continuing to engage stakeholders in an effort to explore ways to allow for dynamic referencing while ensuring backwards compatibility.

SUPPORT

California Environmental Voters

OPPOSITION

Consumer Technology Association

RELATED LEGISLATION

Pending Legislation: None known.

Prior Legislation: None known.

PRIOR VOTES:

Senate Business, Professions and Economic Development Committee (Ayes 9, Noes 2)
Assembly Floor (Ayes 78, Noes 0)
Assembly Appropriations Committee (Ayes 15, Noes 0)
Assembly Judiciary Committee (Ayes 11, Noes 0)
Assembly Privacy and Consumer Protection Committee (Ayes 10, Noes 0)
