

SETTING CONSUMER STANDARDS FOR
LITHIUM-ION BATTERIES ACT

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION

ON

S. 389



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SETTING CONSUMER STANDARDS FOR LITHIUM-ION BATTERIES ACT

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Mr. CRUZ, from the Committee on Commerce, Science, and
Transportation, submitted the following

R E P O R T

[To accompany S. 389]

[Including cost estimate of the Congressional Budget Office]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 389) to establish consumer standards for lithium-ion batteries, having considered the same, reports favorably thereon with an amendment and recommends that the bill (as amended) do pass.¹

PURPOSE OF THE BILL

The purpose of S. 389 is to protect consumers from the risk of fires due to rechargeable lithium-ion batteries by requiring the Consumer Product Safety Commission (CPSC) to issue a consumer product safety standard for rechargeable lithium-ion batteries used in micromobility devices, such as electric bicycles and scooters.

BACKGROUND AND NEEDS

Lithium-ion batteries are used in various consumer devices, including electric scooters and bicycles.² As the number of electric bicycles and scooters have increased, the number of lithium-ion bat-

¹At the markup, S. 389 was ordered to be reported without amendment, but post-markup, a technical amendment required the bill to be reported favorably with an amendment.

²“Safety Tips for Lithium-Ion Batteries,” FDNY Smart (<https://www.fdnysmart.org/be-fdnysmart-when-using-any-devices-powered-by-lithium-ion-batteries/>).

teries in circulation has increased. Lithium-ion batteries were fitted to 75 percent of electric scooters in 2023.³

Defective lithium-ion batteries, which often do not meet recognized industry safety standards, can overheat, catch fire, or explode.⁴ For example, in New York City, batteries caused over 250 fires in 2023, posing a safety risk not only to owners of the battery-powered products, but anyone in close proximity.⁵ Since 2021, lithium-ion battery fires have caused over 300 injuries and 29 deaths, as well as damage to many structures.⁶ Fires caused by lithium-ion batteries are especially difficult for fire departments to manage because the batteries can quickly burst into flames.⁷ Their spread is accelerated by the flammable and toxic gases they release, including carbon monoxide and hydrogen fluoride.⁸ Fire departments across the United States have conducted education campaigns about batteries as an attempt to prevent and minimize the hazards of lithium-ion battery fires.⁹

UL Solutions has established voluntary standards for lithium-ion battery manufacturing; however, lower-cost imported devices—particularly from China—may not meet these standards.¹⁰ Less expensive imported lithium-ion batteries that do not meet the UL standards typically are the cause of fires due to their lack of quality control in manufacturing.¹¹

If manufactured safely according to UL standards, lithium-ion batteries have a very low rate of failure.¹² However, without a standard, it can be difficult for consumers to ascertain the difference between poorly manufactured batteries that do not meet industry standards and safely manufactured batteries that do.¹³ Requiring all lithium-ion batteries for micromobility devices—even those imported into the United States—to meet CPSC-adopted safety standards would ensure that all lithium-ion batteries available for consumer purchase meet a baseline level of safety.

This bill would require the CPSC to adopt three UL standards for lithium-ion batteries as consumer product safety standards for

³Daniel Foley, “Electric Scooter Batteries—Everything You Need to Know, Unagi Scooters,” August 6, 2024 (<https://unagiscooters.com/scooter-articles/electric-scooter-batteries-everything-you-need-to-know/>).

⁴Samantha Murphy Kelly, “Lithium-ion Battery Fires Are Happening More Often. Here’s How to Prevent Them,” CNN, March 9, 2023 (<https://www.cnn.com/2023/03/09/tech/lithium-ion-battery-fires/index.html>).

⁵Erin Ailworth, “Lithium-Ion Batteries Are Everywhere. Fires Caused by Shoddy Ones are on the Rise,” *Wall Street Journal*, March 17, 2024 (<https://www.wsj.com/us-news/lithium-ion-batteries-are-everywhere-fires-caused-by-shoddy-ones-are-on-the-rise-ef6fb633>).

⁶Office of U.S. Senator Kirsten Gillibrand, press release, March 26, 2024 (<https://www.gillibrand.senate.gov/news/press/release/gillibrand-schumer-announce-e-bike-safety-bill-is-now-bipartisan-in-the-senate-with-addition-of-republican-cosponsors/>).

⁷Erin Ailworth, “Lithium-Ion Batteries Are Everywhere. Fires Caused by Shoddy Ones Are on the Rise,” *The Wall Street Journal*, March 17, 2024 (<https://www.wsj.com/us-news/lithium-ion-batteries-are-everywhere-fires-caused-by-shoddy-ones-are-on-the-rise-ef6fb633>).

⁸Ibid.

⁹“Take C.H.A.R.G.E. of Battery Safety Campaign,” Fire Safety Research Institute, October 18, 2023 (<https://fsri.org/programs/take-charge-battery-safety>).

¹⁰Stephanie Clifford, “Fire! Fire! Fire! The Perplexing, Deadly Electric Bike Problem,” *Consumer Reports*, December 8, 2022 (<https://www.consumerreports.org/health/electric-bikes/electric-bike-fires-and-lithium-ion-batteries-a4632489902/>).

¹¹Peter Allan Clark, “Lithium Battery Fires Spark Regulation Push,” *Axios*, March 31, 2023 (<https://www.axios.com/2023/03/31/battery-fires-regulation-new-york-city-lithium-ion>).

¹²“E-Scooter & E-Bike Battery Fires,” UL Standards and Engagement (<https://ulse.org/e-bikes>).

¹³Samantha Murphy Kelly, “Lithium-ion Battery Fires Are Happening More Often. Here’s How to Prevent Them,” CNN, March 9, 2023 (<https://www.cnn.com/2023/03/09/tech/lithium-ion-battery-fires/index.html>).

rechargeable lithium-ion batteries used in micromobility devices, such as electric scooters or bikes, in order to protect against fires.

SUMMARY OF PROVISIONS

S. 389 would do the following:

- Require the CPSC to adopt ANSI/CAN/UL 2271 (standard for batteries for use in light electric vehicle application); ANSI/CAN/UL 2849 (standard for safety for electrical systems for ebikes); and ANSI/CAN/UL 2272 (standard for electrical systems for personal e-mobility devices) as consumer product safety standards for rechargeable lithium-ion batteries used in micromobility devices, such as electric bikes and scooters.
- Require the CPSC to adopt ANSI/CAN/UL revisions unless the CPSC determines that such revisions do not improve the safety of the consumer product covered by the standard.
- Require the CPSC to submit a report to the Senate Commerce Committee and the House Energy and Commerce Committee regarding fires, explosions, and other hazards relating to lithium-ion batteries used in micromobility devices.

LEGISLATIVE HISTORY

S. 389, the Setting Consumer Standards for Lithium-Ion Batteries Act, was introduced on February 4, 2025, by Senator Gillibrand (for herself and Senators Blackburn, Fischer, and Schumer) and was referred to the Committee on Commerce, Science, and Transportation of the Senate. On March 12, 2025, the Committee met in open Executive Session and, by voice vote, ordered S. 389 to be reported favorably without amendment. After the markup, the bill had a technical amendment which required S. 389 to be reported favorably with an amendment.

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S. 1008, the Setting Consumer Standards for Lithium-Ion Batteries Act, was introduced by Senator Gillibrand (for herself and Senator Schumer) and was referred to the Committee on Commerce, Science, and Transportation of the Senate. On July 31, 2024, the Committee met in open Executive Session and, by voice vote, ordered S. 1008 to be reported favorably without amendment. Senators Blackburn, Braun, and Tester became additional cosponsors.

H.R. 1797, a House companion bill, was introduced on March 24, 2023, by Representative Torres (for himself and Representatives Garbarino, Clarke of NY, Ryan, Bowman, D'Esposito, Espaillat, and Goldman) and was referred to the Committee on Energy and Commerce of the House of Representatives. One Delegate and 14 Representatives became additional cosponsors. On December 6, 2023, that Committee met in open Executive Session, and H.R. 1797 was ordered to be reported, as amended, by a recorded vote of 42–0. On May 15, 2024, the House passed H.R. 1797 under suspension of the rules by a vote of 378–34.

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget

Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

At a Glance			
Commerce Legislation			
As ordered reported by the Senate Committee on Commerce, Science, and Transportation on March 12, 2025			
On March 12, 2025, the Senate Committee on Commerce, Science, and Transportation ordered reported 14 bills. This document provides estimates for 3 of those bills. One bill, S. 414, was reported on June 24, 2025. Details of the estimated costs of each bill are discussed in the text.			
CBO estimates that enacting each bill would increase spending subject to appropriation.			
None of the bills would increase direct spending or revenues; thus, pay-as-you-go procedures do not apply.			
CBO estimates that none of the bills would increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2036.			
All three bills contain private-sector mandates.			
Bill	Net Increase or Decrease (-) in the Deficit Over the 2025-2035 Period (Millions of Dollars)	Changes in Spending Subject to Appropriation Over the 2025-2030 Period (Outlays, Millions of Dollars)	Mandate Effects?
S. 289	0	2	Yes
S. 389	0	8	Yes
S. 414	0	*	Yes
* = between zero and \$500,000.			

Summary of legislation: On March 12, 2025, the Senate Committee on Commerce, Science, and Transportation ordered reported 14 bills. This document provides estimates for 3 of those bills. One bill, S. 414, was reported on June 24, 2025.

S. 289 would ban the sale of certain products covered by the Consumer Product Safety Act and S. 389 would require the Consumer Product Safety Commission (CPSC) to adopt voluntary safety standards for lithium-ion batteries. S. 414 would require digital advertising platforms to report annually to the Federal Trade Commission (FTC).

Estimated Federal cost: The costs of the legislation fall within budget functions 370 (commerce and housing credit) and 550 (health).

Basis of estimate: For this estimate, CBO assumes that each bill will be enacted near the end of fiscal year 2025 and that the estimated amounts will be available each year. The cost estimate does not include any effects of interactions among the bills. If all three bills were combined and enacted as a single piece of legislation, the effects could be different from the sum of the separate estimates, although CBO expects that any differences would be small.

S. 289, the Youth Poisoning Protection Act, would ban the sale of products containing 10 percent or more by weight of sodium nitrite that are covered under the Consumer Product Safety Act. The legislation would not affect the sale or use of commercial or industrial products not ordinarily intended for consumer use or consumption.

Using information from the Consumer Product Safety Commission, CBO estimates that implementing S. 289 would cost \$2 million over the 2025–2030 period; any related spending would be subject to the availability of appropriated funds.

S. 389, the Setting Consumer Standards for Lithium-Ion Batteries Act, would require the Consumer Product Safety Commission within 180 days of enactment, to adopt certain voluntary safety standards—specifically ANSI/CAN/UL 2271, 2849, and 2272—concerning rechargeable lithium-ion batteries used in electric bicycles, scooters, and other micromobility devices. The bill also would require the CPSC to determine the applicable scope of covered consumer products and to monitor and evaluate future revisions to the voluntary standards and report to the Congress within five years of enactment.

Using information from the CPSC, CBO estimates that implementing S. 389 would cost \$8 million over the 2025–2030 period; any related spending would be subject to the availability of appropriated funds.

S. 414, the ADS for Mental Health Services Act, would require certain digital advertising platforms to report annually to the Federal Trade Commission about advertising on their platforms for certain mental health services, including information on the number, percent, and dollar value of such advertisements. Platforms that would be affected by the bill include social media platforms, public facing websites, online services, and mobile applications with more than 100 million unique monthly users. The bill also would require the FTC to report annually to the Congress summarizing that data. CBO estimates that enacting S. 414 would cost less than \$500,000 over the 2025–2030 period. Any related spending would be subject to the availability of appropriated funds.

Pay-As-You-Go considerations: The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. None of the bills would affect direct spending or revenues; thus, pay-as-you-go procedures do not apply.

Increase in long-term net direct spending and deficits: CBO estimates that enacting S. 289, S. 389 and S. 414 would not increase net direct spending or deficits in any of the four consecutive 10-year periods beginning in 2036.

Mandates: All three bills would impose private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). None of the bills would impose intergovernmental mandates.

S. 289, the Youth Poisoning Protection Act, would impose a private-sector mandate as defined in UMRA by banning the sale of consumer products containing 10 percent or more of sodium nitrite by weight. The prohibition would not apply to industrial uses or to food preservation. Because there is only a small market for consumer products containing that much sodium nitrite and some states already have curtailed the sale of products containing sodium nitrite, CBO estimates that the cost of the mandate would not exceed the private-sector threshold established in UMRA (\$206 million in 2025, adjusted annually for inflation).

S. 389, the Setting Consumer Standards for Lithium-Ion Batteries Act, would impose a private-sector mandate as defined in UMRA by requiring manufacturers of electric mobility devices, including bicycles and scooters, to comply with a prospective Consumer Product Safety Commission safety standard related to the risk of fire in lithium-ion batteries. Based on voluntary compliance with the specified standard by domestic manufacturers and current

state and local laws requiring compliance, CBO estimates that the cost of the mandate would not exceed the annual private-sector threshold established in UMRA (\$206 million in 2025, adjusted annually for inflation).

S. 414, the ADS for Mental Health Services Act, would require certain digital advertising platforms to report to the FTC on their public service advertisements for mental and behavioral health. That requirement would impose a private-sector mandate as defined by UMRA. CBO estimates the cost of the mandate would be small and not exceed the threshold established in UMRA (\$206 million in 2025, adjusted annually for inflation) because the mandated entities generally already possess or collect the information required to be reported under the bill.

Estimate prepared by: Federal costs: Cyrus Ekland (for the Consumer Product Safety Commission); Johnny Willing (for the Federal Trade Commission). Mandates: Andrew Laughlin (for the Consumer Product Safety Commission); Rachel Austin (for the Federal Trade Commission).

Estimate reviewed by: Sean Dunbar, Chief, Low-Income Health Programs and Prescription Drugs Cost Estimates Unit; Justin Humphrey, Chief, Finance, Housing, and Education Cost Estimates Unit; Kathleen FitzGerald, Chief, Public and Private Mandates Unit; H. Samuel Papenfuss, Deputy Director of Budget Analysis.

Estimate approved by: Phillip L. Swagel, Director, Congressional Budget Office.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

Number of Persons Covered

S. 389 requires the CPSC to promulgate a final consumer product standard. It also requires manufacturers of micromobility products and lithium-ion batteries to adhere to these standards. Therefore, the number of persons covered by this Act is approximately equal to affected staff at the CPSC and producers of lithium-ion batteries and micromobility devices.

Economic Impact

It is expected that this legislation will have some economic impact. While it is possible that a safety standard could increase the cost of batteries for some users of micromobility products, the risk of fires will decrease, saving costs for consumers and cities. In New York City alone, there were 268 fires in 2023.¹⁶

Privacy

S. 389 would not have a significant impact on the privacy rights of individuals.

¹⁶Erin Ailworth, "Lithium-Ion Batteries Are Everywhere. Fires Caused by Shoddy Ones Are on the Rise," *The Wall Street Journal*, March 17, 2024 (<https://www.wsj.com/us-news/lithium-ion-batteries-are-everywhere-fires-caused-by-shoddy-ones-are-on-the-rise-ef6fb633>).

Paperwork

The Committee does not anticipate a major increase in paperwork burdens for private individuals or businesses resulting from the passage of this legislation. S. 389 would require the CPSC to report to Congress regarding fires, explosions, and other hazards relating to lithium-ion batteries used in micromobility products.

CONGRESSIONALLY DIRECTED SPENDING

In compliance with paragraph 4(b) of rule XLIV of the Standing Rules of the Senate, the Committee provides that no provisions contained in the bill, as reported, meet the definition of congressionally directed spending items under the rule.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

This section would provide that the Act may be cited as the “Setting Consumer Standards for Lithium-Ion Batteries Act”.

Section 2. Consumer product safety standard for certain batteries

This section would require the CPSC to promulgate a rulemaking to adopt the following UL standards as mandatory safety standards no later than 180 days after enactment to protect against the risk of fires caused by rechargeable lithium-ion batteries used in micromobility devices: (1) ANSI/CAN/UL 2271 (standard for batteries for use in light electric vehicle applications); (2) ANSI/CAN/UL 2849 (standard for safety for electrical systems for ebikes); and (3) ANSI/CAN/UL 2272 (standard for electrical systems for personal e-mobility devices).

This section would also require the CPSC to limit the application of such mandatory standards adopted to consumer products as defined by the Consumer Product Safety Act.

Further, this section would provide that in the event the standards adopted by the CPSC are revised, the organization that made the revision must notify the CPSC. It would further provide that the CPSC must then adopt the revision within 90 days of receiving the notice unless it finds that the revision does not improve the safety of the consumer product.

This section would clarify that any revisions to the standards adopted by the CPSC are to be considered mandatory standards.

Finally, this section would require, no later than 5 years after enactment, the CPSC to submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Energy and Commerce of the House of Representatives regarding fires, explosions, and other hazards relating to lithium-ion batteries used in micromobility products. The report must note, if known, the make and model of the lithium-ion battery that resulted in the hazards, whether it complied with the standards in this Act, and the manufacturer and country of manufacture.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee states that the bill as reported would make no change to existing law.

