



UNITED STATES  
 CONSUMER PRODUCT SAFETY COMMISSION  
 4330 EAST WEST HIGHWAY  
 BETHESDA, MD 20814

This document has been electronically  
 approved and signed.

**DATE:** July 8, 2020

**BALLOT VOTE SHEET**

**TO:** The Commission  
 Alberta E. Mills, Secretary

**THROUGH:** John G. Mullan, General Counsel  
 Mary T. Boyle, Executive Director

**FROM:** Hyun S. Kim, Acting Assistant General Counsel  
 Mary A. House, Attorney, OGC

**SUBJECT:** Federal Register Notice: CPSC Micromobility Products Forum

**BALLOT VOTE DUE** Tuesday, July 14, 2020

The Office of the General Counsel (OGC) is forwarding for Commission consideration a draft *Federal Register* Notice, titled, “CPSC Micromobility Products Forum,” announcing the details of the Forum via CPSC webinar. The purpose of the Forum is to discuss safety hazards associated with e-scooters, e-bicycles, and hoverboards, and to collect information on the product market, hazards, risk, and risk-reduction efforts for these products. Information collected from the Forum will assist staff in making recommendations for improving the safety of these consumer products. The Forum was directed by the Commission in the Fiscal Year 2020 Operating Plan as Milestone 18.

Please indicate your vote on the following options:

- I. Approve publication of the attached document in the *Federal Register*, as drafted.

\_\_\_\_\_  
 (Signature)

\_\_\_\_\_  
 (Date)

II. Approve publication of the attached document in the *Federal Register*, with the specified changes:

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\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

III. Do not approve publication of the attached document in the *Federal Register*.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

IV. Take other action specified below:

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\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

Attachment: Draft *Federal Register* Notice: CPSC Micromobility Products Forum

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[Billing Code 6355-01-P]

**CONSUMER PRODUCT SAFETY COMMISSION**

**[CPSC Docket No. CPSC-2020-XXXX]**

**CPSC Micromobility Products Forum**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Announcement of meeting.

**SUMMARY:** Consumer Product Safety Commission (CPSC) staff is holding a forum on micromobility products (e-scooters, e-bicycles, and hoverboards). CPSC staff invites interested parties to attend or participate in the forum via Webinar.

**DATES:** The Micromobility Product Forum will be held from 9 a.m. to 4 p.m. Eastern Standard Time (EST) on September 15, 2020, via CPSC webinar. All attendees should pre-register for the webinar. Individuals interested in serving on panels or presenting information at the Forum should register by August 3, 2020. All other individuals who wish to attend the forum should register by August 28, 2020.

**ADDRESSES:** The forum will be held via webinar. Attendance is free of charge. Persons interested in serving on a panel, presenting information, or attending the Forum should register online at: [https://attendee.gotowebinar.com/register/\[insert webinar number\]](https://attendee.gotowebinar.com/register/[insert webinar number]) and fill in the information. After registering, you will receive a confirmation email containing information about joining the webinar. Detailed instructions for the Forum participants and other interested parties will be made available on the CPSC website on the public calendar:

<https://cpsc.gov/newsroom/public-calendar>.

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**FOR FURTHER INFORMATION CONTACT:** Lawrence Mella, Directorate for Engineering Sciences, 5 Research Place, Rockville, MD 20850; telephone 301-987-2537; e-mail:

[LMella@cpsec.gov](mailto:LMella@cpsec.gov).

### SUPPLEMENTARY INFORMATION:

CPSC staff is hosting a Micromobility Products Forum to collect information on the product market, hazards, risk, and risk-reduction efforts associated with micromobility products. The information collected from the Forum will assist staff in making recommendations for improving the safety of these consumer products.

#### I. Background

##### A. *Micromobility Product Descriptions*

“Micromobility products”<sup>1</sup> (e-scooters, e-bicycles, and hoverboards, each discussed in turn) are an emerging mode of personal transportation. Micromobility products can occupy space alongside bicycles on dedicated bike lanes or paths, but they are not intended for sidewalks with pedestrians or for vehicle-occupied roads with cars and trucks.<sup>2</sup> Micromobility products now use electric motors as a propulsion system because of advancements in rechargeable battery technology. These products are popular with consumers because they are convenient for short-distance travel.

An electric standing scooter (e-scooter) has the following characteristics:

- foot platform for the operator (and passenger) to stand on,
- center column with a handlebar for steering,

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<sup>1</sup> Taxonomy and Classification of Powered Micromobility Vehicles. SAE International, 2019.

<sup>2</sup> Zarif, Rasheq, et al., “Small Is Beautiful.” Deloitte Insights, 15 Apr. 2019, [www2.deloitte.com/us/en/insights/focus/future-of-mobility/micro-mobility-is-the-future-of-urban-transportation.html?id=us%3A2ps%3A3gl%3Aconfidence%3Aeng%3Acons%3A42319%3Aanonem%3Aana%3AnhRV7UOI%3A1149484916%3A344865936385%3Ab%3AFuture\\_of\\_Mobility%3AMicromobility\\_BMM%3Anb](http://www2.deloitte.com/us/en/insights/focus/future-of-mobility/micro-mobility-is-the-future-of-urban-transportation.html?id=us%3A2ps%3A3gl%3Aconfidence%3Aeng%3Acons%3A42319%3Aanonem%3Aana%3AnhRV7UOI%3A1149484916%3A344865936385%3Ab%3AFuture_of_Mobility%3AMicromobility_BMM%3Anb).

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- speed controlled by the operator using the accelerator/throttle and brakes,
- powered partially or fully by a motor,
- manufactured primarily for transportation of not more than one person (except for specifically designed vehicles), and
- composed of two or three wheels held in a frame in the longitudinal direction of travel.

CPSC's regulation at 16 CFR § 1512.2(a)(2) defines "bicycle" as a "two- or three-wheeled vehicle with fully operable pedals and an electric motor of less than 750 watts (1 h.p.), whose maximum speed on a paved level surface, when powered solely by such a motor while ridden by an operator who weighs 170 pounds, is less than 20 mph." Staff refers to this product as an "electric bicycle," an "e-bicycle," or "e-bike." E-bicycles can be equipped with an electric motor that provides assistance while pedaling, or full propulsion.

Hoverboards have the following characteristics:

- foot platforms or footpegs for the operator to stand on,
- may have self-balancing mechanism (not statically stable),
- controlled by the operator via controls on a center column and/or the operator distributing their weight for speed and steering,
- powered solely by a motor,
- manufactured primarily for transportation of not more than one person, and
- one or two wheels in parallel.

### *B. Micromobility Product Use*

Consumers purchase micromobility products for personal transportation, as well as rent and use them through ride-share applications. For example, e-scooters and e-bicycles are

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increasingly used in ride-sharing programs in cities across the United States, where each product can be used by many different riders, multiple times a day. Some ride-sharing systems offer rental transportation products that have docking stations for drop-off and pickup, while other systems use smartphone applications to provide a dockless option.<sup>3</sup>

### C. *Relevant Voluntary Standards*

ASTM has two voluntary standards related to powered scooters and skateboards for children: ASTM F2641-08(2015), *Standard Consumer Safety Specification for Recreational Powered Scooters and Pocket Bikes* and ASTM F2642-08(2015), *Standard Consumer Safety Specification for Safety Instructions and Labeling for Recreational Powered Scooters and Pocket Bikes*. CPSC staff is involved in ASTM's development of two additional voluntary standards: the *Standard Consumer Safety Specification for Commercial Electric-Powered Scooters for Adults*, and the *Standard Consumer Safety Specification for Self-Balancing Scooters (Hoverboards)*. UL has two relevant electrical safety standards: UL 2272, *Standard for Electrical Systems for Personal E-Mobility Devices* and UL 2849, *Standard for Electrical Systems for E-bikes*.

## II. **Forum Topics**

The Micromobility Products Forum will cover three specific micromobility products: e-scooters, e-bicycles, and hoverboards.<sup>4</sup> CPSC staff is interested in safety-related information on these products, including, but not limited to:

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<sup>3</sup> DuPuis, Nicole, and Jason Griess. *Micromobility in Cities A History and Policy Overview*. National League of Cities (NLC), *Micromobility in Cities A History and Policy Overview*.

<sup>4</sup> The forum will not discuss various other categories of micromobility products not described in this notice.

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### A. *Research*

- Braking performance, such as brake distance, reliability, durability, and variability on level ground versus inclines and various system power levels;
- Product dynamics, such as handling characteristics, stability over various surfaces, and chassis integrity;
- Software integration, such as functionality after power loss or system shut down, speed restriction, brake assist, and application (app) security;
- Battery safety, such as factors related to various battery types, power output, and battery management systems; and
- Human interaction with micromobility products, such as foreseeable uses, expectations, and body positioning in various situations.

### B. *Injury Data and Statistics*

- Information on injury scenarios and severity, and
- Injuries in relation to consumer age.

### C. *Safety Standards Development*

- Existing standards, developing standards, and gaps in the standards.

### D. *Impact of Micromobility Products on the Urban Infrastructure*

- Use of micromobility products in bike lanes, streets, sidewalks, or urban areas;
- Charging products at residential versus commercial locations; and
- Differences between commercial and consumer micromobility products.

### E. *Safety Gear and Protective Equipment*

- Equipment or safety practices that may decrease hazards.

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### *F. Safety Instructions and Labeling*

- Warning labels and on-product and point-of-sale warning information relevant to micromobility product usage.

## **III. Forum Details**

### *A. Forum Time and Place*

CPSC staff will hold the Forum from 9 a.m. to 4 p.m. EST on Tuesday, September 15, 2020, via webinar.

### *B. Forum Registration*

If you would like to make a presentation at the Micromobility Products Forum, or wish to be considered as a panel member for a specific topic or topics, you should register online by August 3, 2020. (See the **ADDRESSES** portion of this document for the website link and instructions on where to register.) If you would like to attend the forum, but do not wish to make a presentation or participate on a panel, please register online by September 4, 2020.

When registering online, please indicate whether you would like to serve on a panel or make a presentation, and if so, submit to the email provided an abstract of your topic of less than one page. Staff will select panelists and individuals to make presentations at the Forum based on considerations such as: the submitted abstract information, the individual's demonstrated familiarity or expertise with the topic to be discussed, the practical utility of the information to be presented, and the individual's viewpoint or ability to represent certain interests (such as large manufacturers, small manufacturers, consumer advocates, and consumers). Staff would like the presentations to represent and address a wide variety of stakeholders and interests.

Although staff will make an effort to accommodate all persons who wish to make a presentation, the time allotted for presentations will depend on the agenda and the number of



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persons who wish to speak on a given topic. Staff recommends that individuals and organizations with common interests consolidate or coordinate their presentations and request time for a joint presentation. If you have any questions regarding participating in the Forum, or if you wish to make a presentation, you should email an electronic version of the presentation abstract to Lawrence Mella, [LMella@cpsc.gov](mailto:LMella@cpsc.gov), 301-987-2537 by August 3, 2020. Staff will notify those who are selected to make a presentation or participate in a panel at least 2 weeks before the Forum.

Dated: \_\_\_\_\_

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Alberta E. Mills, Secretary,  
U.S. Consumer Product Safety Commission