



[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2020-BT-TP-0012]

Energy Conservation Program: Test Procedure for Battery Chargers

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Request for information.

SUMMARY: The U.S. Department of Energy (DOE) is initiating a data collection process through this request for information (RFI) to consider whether to amend DOE's test procedure for battery chargers. As part of this request, DOE seeks comment and data on whether there have been changes in product testing methodology or new products on the market since the last test procedure update that may necessitate amending the test procedure for battery chargers. To inform interested parties and to facilitate this process, DOE has also gathered data, identifying several issues described in detail in this document that are associated with the currently applicable test procedures on which DOE is interested in receiving comment. DOE welcomes written comments from the public on any subject within the scope of this document (including topics not raised in this request), as well as the submission of data and other relevant information.

DATES: Written comments and information will be accepted on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at <http://www.regulations.gov>. Follow the instructions for submitting

comments. Alternatively, interested persons may submit comments, identified by docket number EERE–2020–BT–TP–0012, by any of the following methods:

1. *Federal eRulemaking Portal*: <http://www.regulations.gov>. Follow the instructions for submitting comments.
2. *E-mail*: to Batterychargers2020TP0012@ee.doe.gov. Include docket number EERE–2020–BT–TP–0012 in the subject line of the message.
3. *Postal Mail*: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 287-1445. If possible, please submit all items on a compact disc (“CD”), in which case it is not necessary to include printed copies.
4. *Hand Delivery/Courier*: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 950 L’Enfant Plaza, SW., Suite 600, Washington, DC, 20024. Telephone: (202) 287-1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimilies (“faxes”) will be accepted. For detailed instructions on submitting comments and additional information on this process, see section III of this document.

Docket: The docket for this activity, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at <http://www.regulations.gov>. All documents in the docket are listed in the <http://www.regulations.gov> index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket web page can be found at <http://www.regulations.gov/docket?D=EERE-2020-BT-TP-0012>. The docket web page contains instructions on how to access all documents, including public comments, in the docket. See section III for information on how to submit comments through <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Mr. Jeremy Dommu, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-2J, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-9870. E-mail: *ApplianceStandardsQuestions@ee.doe.gov*.

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-8145. E-mail: *michael.kido@hq.doe.gov*.

For further information on how to submit a comment or review other public comments and the docket, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by e-mail: *ApplianceStandardsQuestions@ee.doe.gov*.

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I. Introduction

Battery chargers are included among the consumer products and industrial equipment for which the U.S. Department of Energy (“DOE”) is authorized to establish and amend test procedures and energy conservation standards. (42 U.S.C. 6295(u)) DOE’s test procedures for battery chargers are prescribed at title 10 of the Code of Federal Regulations (“CFR”) part 430, subpart B, appendix Y, *Uniform Test Method for Measuring the Energy Consumption of Battery Chargers* (“Appendix Y”). The following sections discuss DOE’s authority to establish and amend test procedures for battery chargers, as well as relevant background information regarding DOE’s consideration of test procedures for this product.

A. Authority and Background

The Energy Policy and Conservation Act of 1975, as amended (“EPCA”)¹, authorizes, among other things, DOE to regulate the energy efficiency of a number of consumer products

¹ All references to EPCA in this document refer to the statute as amended through America’s Water Infrastructure Act of 2018, Public Law 115–270 (October 23, 2018).

and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B² of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency. These products include battery chargers, the subject of this Request for Information (“RFI”). (42 U.S.C. 6295(u))

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

Federal energy efficiency requirements for covered products established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions of EPCA. (42 U.S.C. 6297(d))

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2) making representations about the efficiency of those consumer products (42 U.S.C. 6293(c)).

² For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

Similarly, DOE must use these test procedures to determine whether the products comply with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE must follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section be reasonably designed to produce test results which measure energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

In addition, EPCA requires that DOE amend its test procedures for all covered products to integrate measures of standby mode and off mode energy consumption into the overall energy efficiency, energy consumption, or other energy descriptor, taking into consideration the most current versions of Standards 62301 and 62087 of the International Electrotechnical Commission (“IEC”), unless the current test procedure already incorporates the standby mode and off mode energy consumption, or if such integration is technically infeasible. (42 U.S.C. 6295(gg)(2)(A)) If an integrated test procedure is technically infeasible, DOE must prescribe separate standby mode and off mode energy use test procedures for the covered product, if a separate test is technically feasible. (*Id.*)

EPCA also requires that, at least once every 7 years, DOE evaluate test procedures for each type of covered product, including battery chargers, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that

reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle or period of use. (42 U.S.C. 6293(b)(1)(A)) If the Secretary determines, on his own behalf or in response to a petition by any interested person, that a test procedure should be prescribed or amended, the Secretary shall promptly publish in the *Federal Register* proposed test procedures and afford interested persons an opportunity to present oral and written data, views, and arguments with respect to such procedures. The comment period on a proposed rule to amend a test procedure shall be at least 60 days and may not exceed 270 days. In prescribing or amending a test procedure, the Secretary shall take into account such information as the Secretary determines relevant to such procedure, including technological developments relating to energy use or energy efficiency of the type (or class) of covered products involved. (42 U.S.C. 6293(b)(2)). If DOE determines that test procedure revisions are not appropriate, DOE must publish its determination not to amend the test procedures. DOE is publishing this RFI to collect data and information to inform its decision in satisfaction of the 7-year review requirement specified in EPCA. (42 U.S.C. 6293(b)(1)(A))

B. Rulemaking History

On December 8, 2006, in response to amendments to EPCA made by the Energy Policy Act of 2005 (Public Law 109-58 (August 8, 2005)) DOE published a final rule that prescribed test procedures for a variety of products. 71 FR 71340 (“December 2006 Final Rule”). As part of the December 2006 Final Rule, DOE established definitions and test procedures for battery chargers. *Id.*

On March 27, 2009, DOE published a final rule incorporating standby and off mode measurements into the DOE test procedures for battery chargers. 74 FR 13318, 13334-13336. On June 1, 2011, DOE published a final rule that again amended the test procedures for battery chargers by inserting a new test procedure to measure the energy consumption of battery chargers in active mode to assist in the development of energy conservation standards and amending the battery charger test procedure to decrease the testing time of battery chargers in standby and off modes. 76 FR 31750 (“June 2011 Final Rule”).

DOE again amended the battery charger test procedures in a final rule published on May 20, 2016. 81 FR 31827 (“May 2016 Final Rule”). The May 2016 Final Rule harmonized the battery charger test procedure with the latest version of the IEC 62301 standard by providing specific resolution and measurement tolerances; amended the battery selection criteria for multi-voltage and multi-capacity battery chargers to limit the number of batteries selected for testing to one; defined and excluded backup battery chargers embedded in continuous use devices from being required to be tested under the battery charger test procedure; allowed lead acid batteries to be conditioned prior to testing; added product-specific certification reporting requirements to 10 CFR 429.39(b); and corrected several cross-reference and typographical errors. *Id.*

II. Request for Information

As an initial matter, DOE seeks comment on whether there have been changes in product testing methodology or new products on the market since the last test procedure update that may necessitate amendments to the test procedure for battery chargers. Specifically, DOE seeks data and information pertinent to whether amended test procedures would more accurately or fully comply with the requirement that they be reasonably designed to produce results that measure

energy use of battery chargers during a representative average use cycle or period of use and not be unduly burdensome to conduct. DOE also seeks information on whether an existing private-sector developed test procedure would produce such results and should be adopted by DOE rather than DOE establishing its own test procedure, either entirely or by adopting only certain provisions of one or more private-sector developed tests.

In the following sections, DOE has also identified a variety of issues on which it seeks input to aid in the development of the technical and economic analyses regarding whether amended test procedures for battery chargers would more accurately or fully comply with the requirements in EPCA that test procedures: (1) be reasonably designed to produce test results reflecting energy use during a representative average use cycle or period of use of the covered product at issue, and (2) not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

Further, DOE issued an RFI to seek more information on whether its test procedures are reasonably designed, as required by EPCA, to produce results that measure the energy use or efficiency of a product during a representative average use cycle or period of use. 84 FR 9721 (March 18, 2019). DOE seeks comment on this issue as it pertains to the test procedure for battery chargers.

Additionally, DOE welcomes comments on other issues relevant to the conduct of this process. In particular, DOE notes that under Executive Order 13771, “Reducing Regulation and Controlling Regulatory Costs,” Executive Branch agencies such as DOE are directed to manage the costs associated with the imposition of expenditures required to comply with Federal regulations. *See* 82 FR 9339 (February 3, 2017). Consistent with that Executive Order, DOE

encourages the public to provide input on measures DOE could take to lower the cost of its regulations applicable to battery chargers consistent with the requirements of EPCA.

A. Scope and Definitions

1. Battery Chargers

A battery charger is a device that charges batteries for consumer products, including battery chargers embedded in other consumer products. 10 CFR 430.2. (*See also* 42 U.S.C. 6291(32)) Functionally, a battery charger is a power conversion device used to transform input voltage to a suitable voltage for charging batteries used to power consumer products, such as cell phones and digital cameras. As stated in the definition, they may be wholly embedded in another consumer product, wholly separate from another consumer product, or partially embedded in another consumer product.

2. Wireless Battery Chargers

DOE established energy conservation standards for battery chargers in a final rule published on June 13, 2016. 81 FR 38266 (“June 2016 Final Rule”). In the June 2016 Final Rule, DOE stated that regarding battery chargers with inductive connections, only those that are designed to operate in a wet environment are subject to standards. 81 FR 38266, 38282. In making this determination, DOE set standards for the mature technology found in electric toothbrushes, while avoiding unintentional restrictions on the development of newer, less mature inductively-charged products. *Id.*

The marketplace shows trends towards two types of battery chargers that rely on inductive (*i.e.*, wireless) connections: charging mats (for cell phones, smartwatches, etc.) and

“wet environment” products (*e.g.*, battery chargers for electric toothbrushes, waterjets and shavers). The wet environment products require sealing to prevent moisture ingress and typically use a locating feature, such as a peg, cradle or a dock, to confine the physical engagement of the receiver and the transmitter. This confinement provides relatively consistent placement of the receiver during testing.

Charging mats that provide a wider freedom of receiver placement potentially would allow for less consistency in placement for the purpose of testing. Differences in a receiver’s position in relation to the transmitter can affect charging efficiency. DOE is currently unaware of any published industry test methods that specifically address the testing of wireless charging mats.

Issue 1: DOE seeks feedback on whether DOE should define a term that refers to “wet environment” installations, and if so, how such terminology should be defined to clearly delineate the scope of wireless battery chargers that are subject to the existing battery test procedure and energy conservation standards.

Issue 2: DOE seeks feedback on possible approaches to testing wireless battery chargers other than those designed for use in a wet environment (*i.e.*, other than using locating features such as a peg or a cradle). In particular, DOE requests information on whether any industry test procedures have been developed or are being developed to specifically address such products.

Issue 3: DOE requests any data on how wireless chargers are used in the field, particularly with regard to the placement of the receiver.

B. Test Procedure

DOE is requesting information and data to update its understanding of consumer use of battery chargers. DOE's current test procedure for battery chargers is codified at Appendix Y and addresses standby mode, off mode and active mode energy use.

1. Battery Chargers Requiring External Low Voltage Power

Some battery chargers are powered by a low-voltage direct current (“DC”) or alternating current (“AC”) input and typically utilize a wall adapter that converts 120 volt (“V”) AC to the low voltage input required by the battery charger. These wall adapters are part of the battery charger system and Section 3.1.4 of Appendix Y requires manufacturers to test with such the wall adapter, provided it is sold or recommended for use with the battery charger being tested. If the unit being tested is designed for operation only on DC input voltage and a wall adapter is neither shipped nor recommended, the unit is tested at 5.0 V DC for products drawing power from a computer USB port or the midpoint of the rated input voltage range for all other products, with the input voltage under both cases remaining within ± 1 percent of the above specified voltage. Appendix Y, Section 3.1.4(c).

The measured unit energy consumption of these latter products can be highly dependent on the wall adapter used during testing. Further, the wall adapter selected for testing may not be representative of the wall adapter typically paired with the battery charger in actual use.

Issue 4: DOE seeks information on the characteristics of the wall adapters typically used when testing battery chargers that are not shipped with a wall adapter and for which a wall adapter is not recommended. DOE also seeks detailed technical information and data on the characteristics

of the wall adapters typically used in the real world with such battery chargers including, but not limited to, input and output voltages, output wattage, power supply topologies, output connector type and the impact of these on average efficiencies..

Issue 5: Additionally, DOE seeks comment on whether testing such battery chargers using a reference wall adapter would be appropriate, and if so, how a reference wall adapter should be defined.

2. End of Discharge Voltage

The battery charger test procedure requires that prior to performing a charge and maintenance mode test, the battery must be properly discharged at a specified discharge rate until it reaches the appropriate end-of-discharge voltage stipulated in Table 3.3.2 of Appendix Y. Similarly, the energy stored in the battery after the charge and maintenance mode test must also be measured by discharging the battery again until it reaches the same end-of-discharge voltage. Appendix Y, Section 3.3.8. Since the publication of the May 2016 Final Rule, batteries with new chemistries or characteristics not covered by Table 3.3.2 may have been introduced in the marketplace. Requiring that these batteries be tested down to the end-of-discharge voltage prescribed in Table 3.3.2 may be inappropriate or result in a final value for battery energy that is not representative of its real-world application.

Issue 6: DOE requests information on any new battery chemistries not covered by the categories listed in Table 3.3.2 of Appendix Y.

Issue 7: DOE requests information on any aspect of a battery's chemistry that warrants an end-of-discharge voltage different than one already specified in Table 3.2.2 of Appendix Y. For example, if a new battery employs a lithium compound as its electrode (*i.e.*, a lithium-ion or lithium polymer battery) but has an end of discharge voltage that is substantially different from what is prescribed in Table 3.3.2, DOE requests information on the specific characteristics of the battery warranting a different end-of-discharge voltage.

3. Battery Charger Usage Profile

The unit energy consumption (“UEC”) represents the annualized amount of the non-useful energy consumed by a battery charger in all modes of operation. Non-useful energy is all the energy consumed by a battery charger that is not transferred and stored in a battery as a result of charging; *i.e.*, the losses. The UEC equation combines various performance parameters including 24-hour energy, measured battery energy, maintenance mode power, standby mode power, off mode power, charge test duration, and usage profiles. Appendix Y, Section 3.3.13. In order to calculate UEC, Table 3.3.3 of Appendix Y defines usage profiles that represent time spent in each mode of operation, specific to each defined product class. These usage profiles are incorporated into the overall UEC calculation in section 3.3.13 of Appendix Y. Table 3.3.3 includes assigned values for time spent in active and maintenance mode (“ $t_{a\&m}$ ”), standby mode (“ t_{sb} ”), off mode (“ t_{off} ”), number of charges per day (“ n ”) and threshold charge time. The usage profiles are based on data for a variety of applications and that primarily consisted of user surveys, metering studies, and stakeholder input that DOE considered as part of the rulemaking culminating in the June 2016 Final Rule. 81 FR 38287. A detailed breakdown of the usage profile cases used to derive Table 3.3.3 of Appendix Y is addressed in Chapter 7 of the June 2016 Final Rule Technical Support Document (“TSD”). Collectively, the analyzed applications

for which DOE has empirical usage data accounted for more than 80 percent of annual aggregate battery charger energy use. Where usage data were lacking, DOE assigned the application a generic usage profile, detailed in section 7.2.2 of the TSD. For most residential applications, DOE based the values in Table 3.3.3 on a single usage profile to represent all users (*i.e.* for other applications that have both residential and commercial usage, DOE developed multiple usage profiles to account for different users). These values can be found in Appendix 7A of the TSD.

Issue 8: DOE requests information on any updates to the consumer usage data as represented by the usage profiles in Table 3.3.3 of Appendix Y, DOE is particularly interested in data specific to end-use device type and battery voltage, if available.

4. Battery Selection

Appendix Y specifies battery selection criteria for testing certain multi-voltage and multi-capacity battery chargers.³ Appendix Y, Table 3.2.1. These criteria apply to multi-voltage and multi-capacity battery chargers packaged or sold without a battery or packaged and sold with more than one battery. Specifically, Table 3.2.1 specifies that testing is performed using the associated battery with the highest voltage and/or highest capacity, and if multiple batteries exist at the highest capacity and voltage, then the battery that results in the highest maintenance mode power must be used. The battery selection criteria result in only one set of test results, and after

³ A “multi-voltage charger” is a battery charger that, by design, can charge a variety of batteries (or batches of batteries, if also a batch charger) that are of different nameplate battery voltages. A multi-voltage charger can also be a multi-port charger if it can charge two or more batteries simultaneously with independent voltages and/or current regulation. Appendix Y, Section 2.18. A battery charger is considered “multi-capacity” if there are associated batteries or configurations of batteries that have different nameplate battery charge capacities. Appendix Y, Section 3.2.3(c)(2).

application of the sampling plan, a single represented value for each basic model of battery charger.

Some battery chargers (*e.g.*, lead-acid battery chargers) can charge numerous combinations of batteries from third-party vendors, and these battery chargers generally do not have a maximum battery capacity limit because theoretically, multiple batteries can be connected in parallel to a single charger. For these devices, manufacturers must certify their basic model by locating a battery that results in the most consumptive maintenance mode power such that all other combinations of third-party batteries will result in a UEC that is less than the certified value. However, finding the most consumptive combination of charger and battery could require a number of trials.

Issue 9: DOE requests feedback on the current battery selection criteria and whether they require revision, particularly for battery chargers that do not ship with batteries or that can be used with batteries from different manufacturers by the end user. DOE requests information on how manufacturers are currently certifying such products.

Issue 10: DOE also requests feedback on possible alternate approaches to testing battery chargers that do not ship with batteries or that can be used with batteries from different manufacturers. For example, one question under consideration, among others, is whether it would be appropriate to test a battery charger with a reference load exhibiting the same characteristics as the battery designed to work with the charger. If this approach is appropriate, DOE also seeks feedback on how to model different battery chemistries using such a reference load.

C. Other Test Procedure Topics

1. Test Procedure Waivers

Any interested person may seek a waiver from the test procedure requirements for a particular basic model of a type of covered product when the basic model for which the petition for waiver is submitted contains one or more design characteristics that: (1) Prevent testing according to the prescribed test procedure, or (2) cause the prescribed test procedures to evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 430.27(a)(1).

DOE has granted a waiver from the DOE test procedure for battery chargers, and an extension of that waiver, for specified battery charger basic models incorporated into robotic vacuum cleaners.⁴ As described in the petition for waiver, the battery charger basic models subject to the Order granting the waiver have a number of settings and management features associated with the vacuum cleaner, not associated with the battery charging function, that must remain at all times. The Petitioner explained that it would be inappropriate to make these functions user-controllable, as they are integral to the function of the robot. 82 FR 16580, 16581 (April 5, 2017). The DOE test procedure for battery chargers requires that any function controlled by the user and not associated with the battery charging process must be switched off or, for functions not possible to switch off, be set to the lowest power-consuming mode.

Appendix Y, Section 3.2.4.b. DOE determined that the current test procedure at Appendix Y would evaluate the battery charger basic models specified in the Order granting the waiver and

⁴ Decision and Order Granting a Waiver to Dyson, Inc. From the Department of Energy Battery Charger Test Procedure (Case No. BC-001) and Extension of Waiver Dyson, Inc. From the Department of Energy Battery Charger Test Procedure (Case No. 2018-012). See 82 FR 16580 (April 5, 2017) and 84 FR 12240 (April 1, 2019), respectively.

the Order granting the extension in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. *See id. and* 84 FR 12240, 12241 (April 1, 2019). Pursuant to the Orders, the specified basic models must be tested and rated such that power to functions not associated with the battery charging process are disabled by isolating a terminal of the battery pack using isolating tape. *Id.*

Issue 11: DOE requests feedback on whether the test procedure waiver approach for battery chargers incorporated into robotic vacuum cleaners is generally appropriate for testing basic models with these features.

2. Other Topics

In addition to the issues identified earlier in this document, DOE welcomes comment on any other aspect of the existing test procedures for battery chargers. As noted, DOE recently issued an RFI to seek more information on whether its test procedures are reasonably designed, as required by EPCA, to produce results that measure the energy use or efficiency of a product during a representative average use cycle or period of use. 84 FR 9721 (March 18, 2019). DOE seeks comment on this issue as it pertains to the test procedure for battery chargers.

DOE also requests comments on whether potential amendments based on the issues discussed would result in a test procedure that is unduly burdensome to conduct, particularly in light of any new products entering the market since the last test procedure update. If commenters believe that any such potential amendments, if adopted, would result in a procedure that is, in fact, unduly burdensome to conduct, DOE seeks information on whether an existing private sector-developed test procedure would be more appropriate. DOE also requests comment

on the benefits and burdens of adopting any industry/voluntary consensus-based or other appropriate test procedure, without modification. DOE incorporated IEC standard 62301, which includes additional instructions for measuring of standby power as well as resolution parameters for test equipment.

Additionally, DOE requests comment on whether the existing test procedures limit a manufacturer's ability to provide additional features to consumers on battery chargers. DOE particularly seeks information on how the test procedures could be amended to reduce the cost of new or additional features and make it more likely that such features are included on battery chargers, while still meeting the requirements of EPCA.

DOE also requests comments on any potential amendments to the existing test procedures that would address impacts on manufacturers, including small businesses.

Finally, DOE published an RFI on the emerging smart technology appliance and equipment market. 83 FR 46886 (September 17, 2018). In that RFI, DOE sought information to better understand market trends and issues in the emerging market for appliances and commercial equipment that incorporate smart technology. DOE's intent in issuing the RFI was to ensure that DOE did not inadvertently impede such innovation in fulfilling its statutory obligations in setting efficiency standards for covered products and equipment. DOE seeks comments, data and information on the issues presented in the RFI as they may be applicable to battery chargers.

III. Submission of Comments

DOE invites all interested parties to submit in writing by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, comments and information on matters addressed in this document and on other matters relevant to DOE's consideration of amended test procedures for battery chargers. These comments and information will aid in the development of a test procedure NOPR for battery chargers if DOE determines that amended test procedures may be appropriate for these products.

Submitting comments via <http://www.regulations.gov>. The <http://www.regulations.gov> web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

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DOE processes submissions made through <http://www.regulations.gov> before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that <http://www.regulations.gov> provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or postal mail. Comments and documents submitted via email, hand delivery/courier, or postal mail also will be posted to <http://www.regulations.gov>. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via postal mail or hand delivery/courier, please provide all

items on a CD, if feasible. It is not necessary to submit printed copies. No facsimiles (faxes) will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery/courier two well-marked copies: one copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

DOE considers public participation to be a very important part of the process for developing test procedures and energy conservation standards. DOE actively encourages the participation and interaction of the public during the comment period in each stage of this process. Interactions with and between members of the public provide a balanced discussion of the issues and assist DOE in the process. Anyone who wishes to be added to the DOE mailing list to receive future notices and information about this process should contact Appliance and Equipment Standards Program staff at (202) 287-1445 or via e-mail at *ApplianceStandardsQuestions@ee.doe.gov*.

Signing Authority

This document of the Department of Energy was signed on April 2, 2020, by Alexander N. Fitzsimmons, Deputy Assistant Secretary for Energy Efficiency, Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in

electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on April 22, 2020.

Treena V. Garrett
Federal Register Liaison Officer,
U.S. Department of Energy

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