Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy
Consumer Federation of America
New York State Energy Research and Development Authority

May 2, 2022

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

RE: Docket Number EERE–2020–BT–STD–0013/RIN 1904–AE50: Notification of Webinar and Availability of Preliminary Technical Support Document for Energy Conservation Standards for Battery Chargers

Dear Mr. Dommu:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), and New York State Energy Research and Development Authority (NYSERDA) on the preliminary technical support document (PTSD) for energy conservation standards for battery chargers. 87 Fed. Reg. 11990 (March 3, 2022). We appreciate the opportunity to provide input to the Department.

We continue to support replacing the unit energy consumption metric with separate metrics for active mode, standby mode, and off mode as proposed in the November 2021 test procedures notice of proposed rulemaking (NOPR). The efficiency levels analyzed in the PTSD, which are based on the proposed appendix Y1 test procedure, provide stakeholders with a good understanding of how the proposed multi-metric approach would be reflected in amended standards. However, we believe there are several gaps in the preliminary analysis that should be addressed in the NOPR stage. First, we believe wireless battery chargers provide an opportunity for significant energy savings, and we therefore urge DOE to evaluate both fixed-location and open-placement wireless chargers in the NOPR analysis. Second, we encourage DOE to investigate whether alternate combinations of active mode and standby mode efficiency levels could yield additional opportunities for cost-effective savings. Third, we urge DOE to either conduct additional testing and teardowns for all product classes, use a design option approach, or use a combination of the two methods to better estimate costs for wired chargers. Finally, we urge DOE to incorporate price learning into the analysis. We believe that these improvements to DOE's analysis could result in additional cost-effective savings.

We urge DOE to evaluate potential standards for wireless chargers. At the April 2022 public meeting, DOE noted that the Department did not evaluate the energy performance of wireless chargers as part of the preliminary analysis but is considering analyzing them in the NOPR stage.[1] As we explained in our comments on the September 2020 request for information, setting efficiency standards for wireless chargers is essential because wireless chargers are significantly less efficient than wired chargers.[2] We believe that standards for wireless battery chargers could achieve significant energy savings, and we therefore strongly support DOE evaluating both fixed-location and open-placement wireless chargers in the NOPR stage analysis.

We encourage DOE to consider evaluating various combinations of standby and active mode efficiency levels to explore the potential for additional cost-effective savings. For the preliminary analysis, DOE analyzed CSLs that involve reducing both active mode and standby mode energy at each higher efficiency level. We encourage DOE to evaluate whether there may be opportunities for cost-effective savings based on different combinations of standby and active mode efficiency levels. Specifically, instead of increasing both active mode and standby mode efficiency together at each subsequent CSL, DOE could consider uncoupling active mode and standby mode efficiencies so that alternate combinations could be analyzed.

We urge DOE to expand the engineering analysis for all product classes analyzed. For the preliminary analysis, DOE selected units from the low-energy battery chargers product class for product testing and teardowns. However, DOE notes in the PTSD that only four units, representing CSL 0 and CSL 3 at two battery energy levels, were used to estimate costs at other CSL and battery energy combinations.[3] These units were also then used to estimate costs for the medium-energy and high-energy product classes. We are concerned about the accuracy of using just four units covering only CSL 0 and CSL 3 from one product class to estimate costs for all wired chargers. Additional product testing and teardowns on representative units in each product class would likely provide DOE with more accurate cost estimates. DOE could also model the design options required at each CSL and battery energy combination and estimate the costs associated with those design options. We urge DOE to either conduct additional testing and teardowns for all product classes, use a design option approach for estimating costs, or use a combination of these two methods to better estimate costs for all wired chargers.

We urge DOE to investigate how the analysis could reflect price learning associated with battery chargers. At this stage of the analysis, DOE did not address price learning. Without price learning incorporated into the analysis, we are concerned that DOE's analysis will result in overestimating the cost to achieve higher efficiency levels over the analysis period. Since improved semiconductors are a key technology option for reaching higher efficiency levels, we

[1] https://www.regulations.gov/document/EERE-2020-BT-STD-0013-0014.
[2] https://www.regulations.gov/comment/EERE-2020-BT-STD-0013-0005.
[3] https://www.regulations.gov/document/EERE-2020-BT-STD-0013-0009. p. 5-17.

specifically encourage the Department to incorporate learning rates associated with semiconductors in the analysis.

Thank you for considering these comments.

Sincerely,

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