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By E-Mail

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Re: Docket No. EERE-2008-BT-STD-0005, RIN No. 1904-AB57;
Joint Comments on the Request for Information on Evaluating
New Products for the Battery Chargers and External Power Supply Rulemaking

The Association of Home Appliance Manufacturers (AHAM), Consumer Electronics Association (CEA), CTIA – The Wireless Association® (CTIA), the Power Tool Institute (PTI), and the Telecommunications Industry Association (TIA) (collectively the Joint Commenters) respectfully submit the following comments to the Department of Energy (DOE) on its Request for Information on Evaluating New Products for the Battery Chargers and External Power Supply Rulemaking, Docket No. EERE-2008-BT-STD-0005, RIN No. 1904-AB57, 78 Fed. Reg. 18253 (March 26, 2013).

DOE requested information to help inform its current rulemaking in which it has proposed to set energy conservation standards for battery chargers and external power supplies (EPSs). Specifically, DOE sought information relevant to determining if the analysis DOE prepared in support of its March 27, 2012, Notice of Proposed Rulemaking (March 27 NOPR) needs revision in light of the fact that the California Energy Commission (CEC) standards for battery chargers became effective on February 1, 2013.

The Joint Commenters support DOE in its efforts to save energy, and are generally supportive of the direction DOE took in the March 27 NOPR with regard to applications in battery charger product classes 2 through 4. As we previously commented (both separately, and in joint comments), it is critical that DOE move swiftly to finalize the battery charger standards for product classes 2 through 4 in order to provide regulated parties with certainty. We are disappointed that DOE has not yet finalized standards for product classes 2 through 4, particularly given that, per statutory mandate, those standards were mandated to go into effect in July of this year. This extraordinary delay has caused considerable uncertainty for manufacturers and resulted in standards becoming effective in California that DOE's own analysis demonstrated have a negative net present value (NPV). DOE's inaction also allows other states to develop standards for battery chargers, thus creating a patchwork of state standards. That is exactly the outcome that the Federal standards program was designed to prevent in order to avoid consumer confusion and market inefficiencies and ensure national energy savings are realized.

Instead of further delaying this rulemaking with a supplemental NOPR (SNOPR) and causing further confusion, uncertainty, and cost for regulated parties, DOE should quickly and urgently finalize this rulemaking for product classes 2 through 4 by promulgating the standards proposed in the March 27 NOPR.¹ The Joint Commenters continue to believe that the analysis in DOE's March 27 NOPR is correct—the CEC standards levels for product classes 2 through 4 are not economically justified. Note that the vast majority of consumer battery chargers are contained within product classes 2 through 4. Importantly, now that the CEC standard is in effect in California, it is now critical that DOE's labeling requirements be identical to CEC's labeling requirements. It would be overly burdensome and too costly to re-label products and packaging, as we further explain below.

I. The Joint Commenters

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's more than 150 members employ tens of thousands of people in the U.S. and produce more than 95% of the household appliances shipped for sale within the U.S. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

¹ If comments on the other battery charger classes and/or the proposed EPS standards necessitate further review and analysis that would delay publication of the final rule, DOE should bifurcate the rulemaking and publish, as soon as possible, the part of the rule that relates to battery charger classes 2 through 4. (In fact, we believe there are sufficient issues with regard to certain EPS product classes and other battery charger product classes that need to be resolved and may likely require further analysis and notice and comment rulemaking). In the event of such bifurcation, EPS product class N should remain in the part of the rule that gets published with battery charger product classes 2 through 4.

CEA is the preeminent trade association promoting growth in the \$209 billion U.S. consumer electronics industry. CEA represents more than 2,000 corporate members involved in the design, development, manufacturing, distribution and integration of audio, video, in-vehicle electronics, wireless and landline communications, information technology, home networking, multimedia and accessory products, as well as related services that are sold through consumer channels. For many years, CEA has supported and advanced energy efficiency in consumer electronics as part of the industry's broader commitment to environmental sustainability. CEA's comprehensive approach to energy efficiency includes industry initiatives related to public policy, consumer education, research and analysis, and industry standards. CEA supports the U.S. Environmental Protection Agency's ENERGY STAR program, and our members' cooperation and participation in this successful program goes back more than 20 years.

CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization includes Commercial Mobile Radio Service ("CMRS") providers and manufacturers, as well as providers and manufacturers of wireless data services and products.

PTI is a trade association of the leading power tool manufacturers in the United States. It has established itself as the preeminent organization for building global understanding of power tools and has been very active in providing ongoing, responsible advocacy promoting meaningful rulemaking for battery charging systems in the United States and Canada.

TIA represents the global information and communications technology industry through standards development, advocacy, tradeshow, business opportunities and market intelligence. TIA's hundreds of member companies' products and services empower communications in every industry and market, including healthcare, education, security, public safety, transportation, energy, government, the military and entertainment. Our members work through TIA's voluntary, consensus-based standards process to enhance the business environment for telecommunications, broadband, mobile wireless, information technology, networks, cable, satellite, unified communications, emergency communications and the sustainability of technology. TIA is accredited by the American National Standards Institute (ANSI)

II. Product Designs and Technologies Used to Meet CEC Standards (Issue 1)

DOE sought comment on the product designs and technologies used by manufacturers to meet the CEC standards, as well as other changes made to the products since DOE's March 27 NOPR analysis.

During the May 2, 2012, public meeting, CEC argued that by considering its version of charge control technology, DOE would calculate a positive NPV. The Joint Commenters continue to strongly disagree. CEC's standards have limited consumer choice with regard to nickel-based chemistry chargers for some battery energies above about 20 Wh. And, the CEC standards levels have impacted the performance of those few products that remain in that category. CEC's own data showed that no nickel-based systems were compliant with the originally proposed maintenance power level or no-battery power level above about 20 Wh. And the final standards levels did not differ significantly from the original proposals—the promulgated levels create the

same results. There are many medium-sized appliances, for example, that have batteries that exceed 20 Wh, and for these, CEC did not demonstrate feasibility through its survey of the population of existing designs. DOE cannot adopt a standard that would result in the unavailability of performance characteristics or features. See Energy Policy and Conservation Act, § 323 (o)(4).

Most importantly, the Joint Commenters are not aware of any battery chargers on the market today, even after implementation of the CEC standard, that use Ecova's laboratory-developed version of charge control technology (upon which CEC's comments seem to rely). Even Ecova, which provided CEC's underlying analysis, admitted during the DOE public meeting that there are no products on the market today using the technology it and CEC propose DOE include in its analysis. (May 2, 2012 Public Meeting at 270-71). Instead, Ecova based its analysis on a product it built in a laboratory. (*Id.*). But a laboratory is different than the market, and a laboratory prototype is not sufficient to support a rulemaking.

As we previously explained, active mode charge termination is one possible method for reducing annual energy consumption in nickel-based battery charging systems. But, it is not an effective method in some circumstances. The approach Ecova suggests does not account for the requirements to charge, equalize, and maintain nickel-based batteries. Ecova "redesigned" a battery charging system for an 18 Volt cordless drill and provided, what it refers to as "hysteresis charging." Ecova presented only this one example—there was no showing that the laboratory technology could work for the wide range of products and applications covered by DOE's rulemaking while maintaining the durability requirements that consumers demand. DOE's formulas in the March 27 NOPR, on the other hand, provide a better measure of true consumption, due to the application of usage factors, and offer manufacturers flexibility as to how to provide improved energy efficiency and maintain consumer utility. Thus, based on their experience developing, designing, and testing a wide array of real, manufacturable, and practical energy saving technologies for nickel-based battery charging systems, industry continues to generally support DOE's proposals in the March 27 NOPR with regard to product classes 2 through 4. Ecova (and the California IOUs and CEC) cannot credibly contend that all of that knowledge and human capital should be negated by a single laboratory-developed, experimental unit.

This is especially true given that the Ecova approach would eliminate important consumer utility. Specifically, it would turn off (or almost turn off) maintenance mode for nickel-based chemistry batteries. The design Ecova proposes would fail to ever fully charge the battery, fail to maintain full charge after termination, and fail to equalize the cells, resulting in shortened battery life. The reason why there are, to our knowledge, currently no battery chargers on the market that use Ecova's laboratory-developed version of charge control technology is simple—it does not work for most nickel-based battery charging systems. Consumers want fully charged batteries, and Ecova/CEC's proposed technology would not provide that for nickel-based chemistries. Instead, if used, it would likely result in customer complaints and returns due to unsatisfactory performance. Accordingly, DOE should not change or supplement its analysis to include the version of charge control technology proposed by Ecova (and CEC)—it is not a viable design option as shown by the lack of products on the market using that technology even after the CEC standards effective date.

III. Product Costs Incurred by Manufacturers to Meet CEC Standards (Issue 2)

DOE sought comment on the product costs incurred by manufacturers to meet the CEC standards, including those related to engineering, design, manufacturing and product labeling.

DOE's March 27 NOPR estimated that manufacturers would have to invest \$12.6 million in product conversion costs and \$3.8 million in capital conversion costs to have all battery charger applications sold in California meet the CEC standard by 2013. The costs to comply with the CEC regulation are too varied—based on the size of the manufacturer and the products involved—for the Joint Commenters to provide an average cost figure. That said, we do not see evidence that DOE's estimates were incorrect. We believe that, for the industries the Joint Commenters represent, the cost to comply with the CEC standards has been in the millions. That number includes dedicating additional personnel to product development and engineering, sourcing and purchasing parts, retooling production lines, testing, labeling, and revising product literature. We discuss the labeling costs more fully below in Section V.

The Berkeley Research Group report that several of the undersigned submitted to DOE as part of this rulemaking (BRG Report) provides further support for what is now reality. Manufacturers provided input on the cost of compliance, and that input is included in the analysis presented in Exhibit 6 of the report.² That Exhibit is reproduced in Attachment A to these comments.

In addition, because of these increased costs, the price for some products has increased. For many of those products, especially infrequently charged products, the consumer is not likely to see payback on those price increases. Other products have remained at the same price point, but manufacturers have had to absorb a decreased margin for those products.

For all of these reasons, the Joint Commenters continue to agree with DOE's analysis that the CEC standards levels for product classes 2 through 4 have a negative NPV and are, thus, not economically justified. It is true that there are products on the market that comply with CEC's standards. But, as discussed above, that does not mean that those standards are economically feasible or that products have not been removed from the market, thus limiting consumer choice.

Accordingly, nothing has changed since last year. And, thus, no update to DOE's March 27 NOPR analysis is required with regard to battery charger product classes 2 through 4. The Joint Commenters continue to support the March 27 NOPR proposed levels for product classes 2 through 4 because those proposed levels have a positive NPV and are the most stringent levels that are technologically feasible *and* economically justified.

² In addition, we note that, as stated in the BRG Report, the CEC analysis provided for estimates of cost to comply with the proposed regulations, but never incorporated those costs into the estimate of annual savings. Furthermore, the BRG Report demonstrates that CEC's analysis of the cost to implement its proposed version of charge control technology is based on inaccuracies.

IV. CEC Standards' Impact on the Supply Chain, Consumers, and the Market (Issues 3 and 4)

DOE sought information on the impact of the CEC standards on manufacturers' supply chains. Specifically, DOE sought information on whether manufacturers will continue to manufacture products that do not meet the CEC standards for sale outside California, while selling a separate product of similar utility and function compliant with CEC standards for sale in California.

DOE also requested information on whether there are any types of products that have been discontinued from sale in California due to the CEC standards. DOE is specifically interested in whether these discontinued products offer consumer utility not offered by products compliant with the CEC standards.

According to feedback from some member companies, due to the increased cost to comply with the CEC standards, there are some products that manufacturers have decided to stop selling in California while continuing to sell them in the rest of the country. We expect that some of our respective members may provide more detail, on a confidential basis, to DOE with regard to the consumer utility offered by those products.

This is also consistent with the BRG Report's finding that CEC's regulations on products such as personal care and portable electronics, for example, will result in approximately 5GWh of energy loss and cost industry and consumers money.

In the March 27 NOPR, DOE determined that it was:

unlikely that all battery chargers sold in the United States will meet the CEC standards by February 1, 2013. First, manufacturers have been given an extremely short transition period of only one year; second, DOE's proposed standards are not as stringent as the CEC standards for product classes 2 through 6, which would potentially reduce the cost of production for these products and make it unlikely that they would be manufactured on a nationwide basis to the higher CEC levels; and third, the CEC standards will be preempted by Federal standards in the future if DOE finalizes standards for these products, giving manufacturers the option of specifically producing products solely for the California market for an interim period. 77 Fed. Reg. at 18546.

DOE's conclusion has proven to be true. Thus, there is no need to update the March 27 NOPR with regard to battery charger classes 2 through 4.

V. Costs and Burdens Associated With a Battery Charger Labeling Requirement

DOE sought information on the potential costs and burdens of complying with a battery charger labeling requirement.

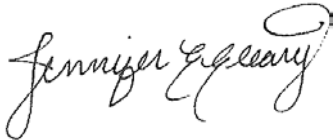
As discussed above, manufacturers have incurred additional cost associated with the CEC labeling requirement. In fact, the labeling requirement has proven especially costly and burdensome because it has required extensive product and/or packaging changes. For many

manufacturers, the change occurred outside of the normal packaging cycle and, therefore, led to significant costs would not normally have been incurred. This cost would again be incurred should DOE prescribe a labeling requirement that differs from the California labeling requirements because manufacturers would yet again have to go through the same packaging changes.

Accordingly, the Joint Commenters request that DOE in its final rule, should it require a label, promulgate labeling requirements identical to the CEC labeling requirements. That is the best (and perhaps only) way to ensure manufacturers do not incur another round of unnecessary cost and burden. A supplemental NOPR is not required to make this change as this was contemplated in the March 27 NOPR: “DOE is aware of California’s marking requirements and is following those, but they will be preempted by DOE’s requirements. Manufacturers would have to transition from meeting CEC requirements to meeting DOE’s requirements. Therefore, DOE would consider adopting CEC’s requirements to minimize the burden associated with the transition.” (77 Fed. Reg. at 18567). We ask that DOE do just that and do so quickly.

The Joint Commenters appreciate the opportunity to submit these comments on DOE’s Request for Information on Evaluating New Products for the Battery Chargers and External Power Supply Rulemaking and would be glad to further discuss these matters should you request.

Respectfully Submitted,



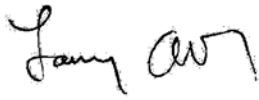
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ATTACHMENT A

Exhibit 6
Energy Savings Prior to Implementation of DOE Regulations, Increased Compliance Rates Due to Technological Innovation, and Modified Costs and Energy Savings Based on Industry Input

Product Category	2013 Sales (millions)	Compliance 2009	Discounted Design Life (Years)	Unit Incremental Cost Increase (\$)	Unit Energy Savings (Kwh/yr)	Compliance 2013	Energy Savings Prior to DOE Regulations With Increased Compliance (Gwh)	Dollar Savings Prior to DOE Regulations With Increased Compliance (\$M)	Incremental Costs (\$M)	Net Savings (\$M)	Benefit / Cost Ratio
Source	CEC	CEC	CEC	CEC/Industry	CEC/Industry	1	2	3	4	5	6
Calculation	a	b	c	d	e	f	g = a * e * (1 - f)	h = g * \$0.14	i = d * a	j = h - i	k = h / i
Auto/Marine/RV	0.20	0%	8.75	\$ 10.00	313.9	40%	38.2	\$ 5.34	\$ 2.03	\$ 3.32	2.64
Cell Phones	41.65	90%	1.97	\$ -	0.5	100%	0.0	\$ -	\$ -	\$ -	N/A
⁷ Cordless Phones	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ -	N/A
Personal Audio Electronics	13.73	90%	2.91	\$ -	0.5	100%	0.0	\$ -	\$ -	\$ -	N/A
Emergency Systems	1.30	10%	6.40	\$ 3.00	15.9	50%	10.3	\$ 1.44	\$ 3.90	\$ (2.46)	0.37
⁸ Laptops	9.54	10%	3.82	\$ 0.03	0.0	50%	0.0	\$ -	\$ 0.29	\$ (0.29)	0.00
Personal Care	2.11	0%	4.71	\$ 0.40	1.8	40%	2.3	\$ 0.32	\$ 0.84	\$ (0.52)	0.38
Personal Electric Vehicles	0.09	10%	8.75	\$ 12.00	536.8	50%	23.0	\$ 3.22	\$ 1.03	\$ 2.19	3.13
Portable Electronics	3.31	10%	4.71	\$ 0.40	1.7	50%	2.8	\$ 0.40	\$ 1.32	\$ (0.93)	0.30
Portable Lighting	0.01	0%	8.75	\$ 0.40	8.6	40%	0.1	\$ 0.01	\$ 0.00	\$ 0.00	1.81
⁹ Power Tools	3.49	10%	5.57	\$ 3.76	11.3	50%	19.7	\$ 2.76	\$ 13.12	\$ (10.35)	0.21
Universal Battery Charger	0.12	50%	7.21	\$ 0.40	3.9	90%	0.0	\$ 0.01	\$ 0.05	\$ (0.04)	0.14
Golf Cart / Electric Carts	0.03	50%	8.75	\$ 200.00	807.6	90%	2.3	\$ 0.32	\$ 5.64	\$ (5.32)	0.06
Emergency Backup Lighting	2.00	50%	8.75	\$ 3.00	8.6	90%	1.7	\$ 0.24	\$ 6.00	\$ (5.76)	0.04
Handheld Barcode Scanners	0.03	50%	7.21	\$ 0.50	19.7	90%	0.1	\$ 0.01	\$ 0.01	\$ (0.01)	0.55
Two-Way Radios	0.03	50%	7.21	\$ 0.50	8.9	90%	0.0	\$ 0.00	\$ 0.01	\$ (0.01)	0.25
Single Phase Lift-Trucks	0.00	0%	12.22	\$ 200.00	1,032.5	40%	1.4	\$ 0.20	\$ 0.47	\$ (0.26)	0.43
Three Phase Lift-Trucks	0.01	0%	12.22	\$ 400.00	4,198.5	40%	14.7	\$ 2.06	\$ 2.34	\$ (0.28)	0.88
Totals							116.6	\$ 16.33	\$ 37.04	\$ (20.71)	

Notes and Sources:

- Compliance increases by 10% annually due to natural technological innovation each year from year 2009 to 2013. This estimate is based on historical Energy Star data. Battery charger compliance with Energy Star has increased from 15% in 2008, 27% in 2009 and an estimated 24% in 2010. See http://www.energystar.gov/index.cfm?c=partners.unit_shipment_data_archives.
- Energy savings assuming DOE regulations go into effect in 2014 and only 2013 energy savings can be attributed to CEC regulations. This figure also includes the increased compliance figures due to technological innovations.
- This figure is multiplied by the cost of energy per kilowatt to calculate the dollar value of the energy savings.
- This figure is the unit incremental cost increase multiplied by the sales.
- Net savings are the dollar energy savings less the incremental costs.
- Benefit / cost ratio is the ratio of energy savings to incremental costs. A ratio of less than 1 indicates that savings are less than total costs.
- Based on industry input, attributing power consumption to battery functions versus other telephony functions is impossible given the nature of cordless phone design. As such, this product category should be excluded as it would require radical product design or could facilitate a manufacturer's complete exit from the California market.
- Based on industry input, the vast majority of laptops already meet the CEC's proposed standards, thus the energy savings earned with the proposed regulations will be negligible. While most believe there will be no cost to comply with the regulations, manufacturers will incur a cost to prove compliance and for mandatory marking.
- Based on industry input regarding the retail impact to consumers and the internal testing of compliant regulations.