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| Filer: | Meg Waltner |
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NRDC Comments on Draft Staff Report

Analysis of Efficiency Standards for Pool Pumps and Motors, and Spas

2015 Appliance Efficiency Rulemaking Docket Number 15-AAER-02

February 29, 2016

Submitted by:

Meg Waltner, Natural Resources Defense Council

On behalf of the Natural Resources Defense Council and our more than 380,000 members and online activists in California, we respectfully submit these comments on the California Energy Commission's (CEC) Draft Staff Report, Analysis of Efficiency Standards for Pool Pumps and Motors, and Spas.

In general, NRDC supports the proposed standards for pool pump motors and portable electric spas proposed in the Draft Staff Report. As the CEC's Draft Staff Report demonstrates, the proposed standards and labeling requirements are technically feasible, cost-effective for consumers, and will result in large energy and greenhouse gas emissions reductions in California. In total, the CEC estimates that the standards will save 129 GWh the first year the standards are in effect and 1,320 GWh annually after full stock turnover, reducing energy bills by \$211 million annually. The proposed standards will also reduce annual greenhouse gas emissions by 455 thousand tons of carbon dioxide equivalent, after full stock turn over.

We urge the CEC to move forward with standards and labeling requirements for pool pump motors and portable electric spas as proposed in the Draft Staff Report. We offer the following specific comments on the proposal.

Pool Pump Motors

The CEC's proposal in the Draft Staff Report builds on the proposal submitted in the IOUs June 2013 CASE report, which NRDC supported, and achieves additional energy savings through the implementation of a second tier. Currently, California requires pool pump motors with a capacity of 1 HP or greater to be capable of operating at two or more speeds and does not allow split-phased or capacitor start-induction run type motors. The current requirements apply only to "residential filtration" applications.

The standards proposed in the Draft Staff Report would expand the scope of coverage to all pool pump motors under 5 total horsepower and would set a two-tier performance requirement, in the place of the current prescriptive requirements. Tier 1 would require full speed efficiency of 70 percent and half-speed efficiency for variable/multiple/dual-speed pumps of 50 percent by

January 1, 2018. Tier 2 would require full speed efficiency of 80 percent and half-speed efficiency for variable/multiple/dual-speed pumps of 65 percent by January 1, 2021. Pool pump motors between 1 and 5 total horsepower would continue to be required to be at least dual-speed. The standards would apply to all pool pump motors under 5 total horsepower, whether sold in conjunction with a pump or as a replacement motor and to all pool pump motor types (rather than just residential filtration pumps).

NRDC strongly supports the proposed requirements. Expanding coverage to pumps below 1 horsepower will lead to significant energy savings. Furthermore, the proposal to expand to all pool pump motors instead of just residential filtration applications will provide clarity to the market and avoid loopholes, achieving additional energy savings. The CEC’s analysis shows that the proposed levels are cost-effective for all pump categories, with many pump types having simple paybacks of less than a year.¹

Portable Electric Spas

The Draft Staff Report proposes to update the standby power requirement for portable electric spas, adds a labeling requirement, and clarifies that the definition of portable electric spa includes inflatable and exercise spas.

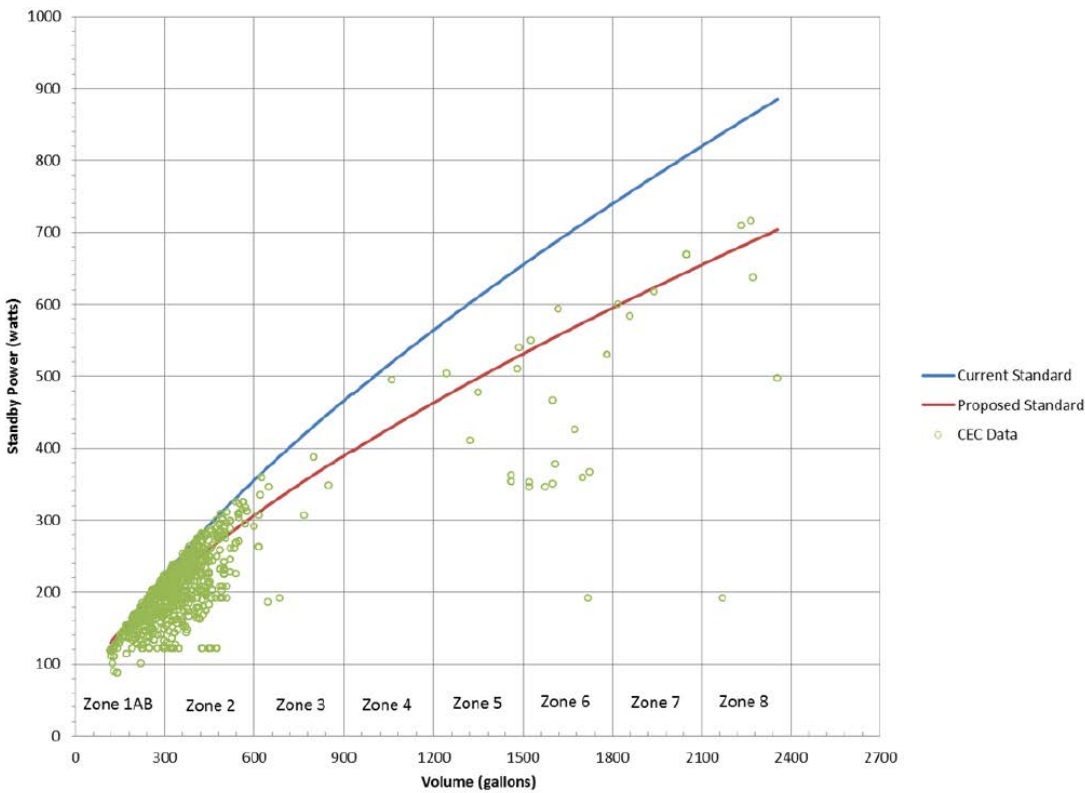


Figure 1: Portable Electric Spas in the CEC Modernized Appliance Efficiency Database System (MAEDBS)²

¹ Draft Staff Report, page 30

² Draft Staff Report, page 92

As can be seen from Figure 1, there is a wide range of standby energy use for any given spa capacity, indicating significant potential energy savings from updated standards and labeling. The updated standards proposed by the CEC are cost-effective and technically feasible: spas at the full range of capacities meet the proposed standards today and the CEC estimates that the proposed standard will have a life-cycle benefit to cost ratio of 5-to-1 for portable electric spas.³ The proposal to require spas to be labeled will achieve additional energy savings by providing consumers information about how much energy a spa consumes. There is a wide range of efficiency amongst spas that meet the proposed standard: standby energy can vary by over 50 percent for a spa of the same capacity. Given this range of efficiency, providing consumers with information about the energy use of spas will allow them to compare models and purchase spas that are more efficient than the minimum standard.

As the CEC notes in its Draft Staff Report, spa cover performance is a critical component of spa standby energy consumption. The Draft Staff Report calculates that a spa cover saves \$3400 a year in operating cost. Given the importance of the spa cover and the variation in cover performance, we recommend that the CEC require spas to be sold with the cover they are tested with. Allowing spas to be sold with other covers than those they are tested with would result in actual energy performance that differs from the certified value, misleading consumers, and jeopardizing energy savings.

In summary, we support the proposed standards for pool pump motors and portable electric spas proposed in the Draft Staff Report and urge the CEC to formally proposed standards based on the analysis. We appreciate the opportunity to submit these comments.

Sincerely,



Meg Waltner
Manager, Building Energy Policy
Natural Resources Defense Council

³ Draft Staff Report, pg. 88