Appliance Standards Awareness Project Alliance to Save Energy American Council for an Energy-Efficient Economy Consumer Federation of America National Consumer Law Center Natural Resources Defense Council

November 6, 2019

Mr. Bryan Berringer U.S. Department of Energy Office of Energy Efficiency and Renewable Energy Building Technologies Office, EE-5B 1000 Independence Avenue SW Washington, DC 20585

## RE: Docket Number EERE–2014–BT–TP–0034 / RIN 1904-AD46: Notice of Proposed Rulemaking for Test Procedures for Clothes Dryers

Dear Mr. Berringer:

This letter constitutes comments of the Appliance Standards Awareness Project (ASAP), Alliance to Save Energy, American Council for an Energy-Efficient Economy, Consumer Federation of America, National Consumer Law Center (on behalf of its low-income clients) and Natural Resources Defense Council on the notice of proposed rulemaking (NOPR) for test procedures for clothes dryers. 84 Fed. Reg. 35484 (July 23, 2019). We appreciate the opportunity to provide input to the Department.

We encourage DOE to add a smaller test load to the test procedure. The current test procedure for clothes dryers specifies a single test load weight of 8.45 lbs. As we noted in our comments on the 2014 notice of public meeting, NEEA's field study found that more than one-third of all loads are 5 lbs. or less.<sup>1</sup> We further noted in our comments on the 2015 RFI that NEEA found in their testing that not only does load size have a significant impact on drying efficiency, but that the magnitude of the impact varies significantly across models.<sup>2</sup> These data suggest that the current test procedure is not providing an accurate relative ranking of clothes dryer models.

DOE argues in the NOPR that the NEEA field data may not be representative of the entire U.S. over the course of a year because the data were collected in the winter months and therefore "may reflect heavier fabrics and larger quantities of clothing items."<sup>3</sup> However, we believe that DOE is inappropriately dismissing the NEEA data. DOE seems to suggest that the NEEA data may not be representative because it may reflect larger loads. But this argument is not supported for at least three

<sup>&</sup>lt;sup>1</sup> <u>https://www.regulations.gov/document?D=EERE-2014-BT-TP-0034-0005</u>.

<sup>&</sup>lt;sup>2</sup> <u>https://www.regulations.gov/document?D=EERE-2014-BT-STD-0058-0012</u>.

<sup>&</sup>lt;sup>3</sup> 84 Fed. Reg. 35491.

reasons. First, NEEA found that the average load size in their study was 7.87 lbs.,<sup>4</sup> which is within 10% of the load size used in the DOE test procedure (and slightly *smaller*, not larger, than the load size in the DOE test procedure). Second, even if the NEEA data did reflect larger loads on average, their finding that more than one-third of all loads are 5 lbs. or less would suggest that small loads may be even more common on a national basis over a year. Finally, it is reasonable to assume that in all parts of the country there is a distribution of load sizes, and there is no reason to believe that it is not common for consumers to dry loads that are significantly smaller than the assumed average load size in the test procedure.

We continue to encourage DOE to add a smaller test load to the test procedure. Adding a smaller test load would better represent the efficiency of clothes dryers in the field and provide better information to consumers about the relative energy use of clothes dryer models.

We encourage DOE to consider testing on more than just the "normal" cycle. The current test procedure for clothes dryers includes testing using only the "normal" cycle. We are concerned that if only the "normal" cycle continues to be tested, consumers may unknowingly end up using significantly more energy than a dryer's rating would suggest. For example, we understand that at least some dryers remember the last cycle chosen by a consumer, which then becomes the default setting. With such a dryer, a consumer may select a more energy-intensive cycle for a single load and unknowingly end up using that same cycle (with the associated energy penalty) for an extended period. We also believe that it will be increasingly important to capture more than one cycle setting with the introduction of more hybrid heat pump clothes dryers. With hybrid heat pumps, the energy consumption on the "normal" cycle could be significantly less than on a different cycle that uses more electric resistance heat. Testing on only the "normal" cycle for such products may thus significantly overestimate the actual efficiency in the field. We encourage DOE to consider testing on more than just the "normal" cycle to better capture the range of operation of clothes dryers and ensure that the test procedure is representative of energy use in the field.

We encourage DOE to continue to monitor the IEC clothes dryer test procedure development process, in particular with regards to an alternative test load composition. DOE notes in the NOPR that IEC is currently investigating alternative clothes dryer test methods, including alternative load compositions.<sup>5</sup> In our comments on both the 2014 notice of public meeting and the 2015 RFI, we encouraged DOE to investigate alternative test loads including the AHAM 1992 load. Testing with a more realistic test load composition would better ensure that the test procedure is representative and is providing good information to consumers. We encourage DOE to continue to monitor the IEC process, in particular with regards to an alternative test load composition, which could assist the Department in adopting a more realistic test load in the future.

**Network mode power consumption should be measured as part of the test procedure.** DOE notes in the NOPR that the Department "is currently aware of a growing number of 'connected' clothes dryer models on the market, from at least six major manufacturers."<sup>6</sup> In the NOPR, DOE proposes to specify that clothes dryers with network capabilities be tested with network-connected functions in the "off" position. Without a measurement of network mode power consumption, consumers will have no information about the additional energy use associated with the connected functionality. Therefore, we

<sup>&</sup>lt;sup>4</sup> <u>https://neea.org/img/uploads/neea-clothes-dryer-field-study.pdf</u>. p. 29.

<sup>&</sup>lt;sup>5</sup> 84 Fed. Reg. 35492.

<sup>&</sup>lt;sup>6</sup> 84 Fed. Reg. 35493.

encourage DOE to include a measurement of network mode power consumption in the test procedure to better represent the energy consumption of "connected" clothes dryers. We note that such a measurement would not impede innovation since any amended standard could account for the additional energy use associated with network mode.

We support DOE's proposed clarification regarding the final RMC on a second test run. In the NOPR, DOE proposes to explicitly specify that any second test run using the highest dryness level setting must result in a final RMC of 2% or less for the test to be considered valid.<sup>7</sup> DOE notes that this clarification "reflects the current practice of manufacturers and test laboratories."<sup>8</sup> We support this clarification to ensure that all dryers are sufficiently drying the clothes during the test.

We support specifying that for dryers with an even number of dryness level settings, the next-highest setting above the mid-point should be used. DOE explains in the NOPR that Appendix D2 specifies that for dryers where the dryness level setting can be chosen independently of the program and there is no "normal" or "medium" dryness level setting, the dryness level is set at the mid-point between the minimum and maximum settings.<sup>9</sup> DOE further notes that for dryers with an even number of settings, a single mid-point is not available. We support specifying that for dryers with an even number of dryness level settings, the next-highest setting above the mid-point should be used. This clarification will ensure that all test laboratories are testing in a consistent manner. In addition, it was pointed out at the DOE public meeting on September 17 that specifying the next-highest setting rather than the next-lowest setting would be more representative since the next-highest setting is more likely to represent a medium dryness level.<sup>10</sup>

We support DOE's proposal to extend calculations of energy consumption measures to Appendix D2 and to add a new calculation of annual energy use. In the NOPR, DOE proposes to allow for calculating each useful measure of energy consumption (e.g. estimated annual operating cost) using Appendix D2 and to include a new calculation of annual energy use. We support these proposals so that there is a consistent methodology for calculating these energy consumption measures.

We encourage DOE to add language to the test procedure to ensure that the efficiency ratings of clothes dryers reflect any software or firmware updates. We understand that clothes dryers that can be connected to the internet may receive software or firmware updates post-installation and that such updates have the potential to affect efficiency performance. It is critical that clothes dryer efficiency ratings remain valid after such software or firmware updates so that a dryer's efficiency rating reflects its performance in the field. Otherwise, consumers would not be able to have confidence in the efficiency ratings provided by manufacturers. In the 2015 test procedures final rule for clothes washers, DOE addressed this issue by specifying that "The determination of the energy test cycle must take into consideration all cycle settings available to the end user, including any cycle selections or cycle modifications provided by the manufacturer via software or firmware updates to the product, for the basic model under test."<sup>11</sup> We encourage DOE to apply a similar approach for clothes dryers to ensure that a dryer's efficiency rating remains valid when considering any software or firmware updates.

<sup>&</sup>lt;sup>7</sup> 84 Fed. Reg. 35497.

<sup>&</sup>lt;sup>8</sup> 84 Fed. Reg. 35499.

<sup>&</sup>lt;sup>9</sup> 84 Fed. Reg. 35497.

<sup>&</sup>lt;sup>10</sup> <u>https://www.regulations.gov/document?D=EERE-2014-BT-TP-0034-0023</u>. p. 45.

<sup>&</sup>lt;sup>11</sup> 80 Fed. Reg. 46761 (August 5, 2015).

Thank you for considering these comments.

Sincerely,

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