

January 29, 2014

Ms. Amanda Stevens  
US Environmental Protection Agency  
Ariel Rios Building 6202J  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Dear Ms. Stevens:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to the ENERGY STAR® Final Draft Version 7.0 of the Residential Clothes Washer Specification, released by the Environmental Protection Agency (EPA) on December 23, 2013.

CEE is the binational organization of energy efficiency program administrators and a staunch supporter of the ENERGY STAR® Program. CEE members are responsible for ratepayer-funded efficiency programs in 45 US states and seven Canadian provinces. In 2011, CEE members directed \$6.1 billion of the \$7.6 billion in energy efficiency and demand response program expenditures in the two countries. These comments are offered in support of the local activities CEE members carry out to actively leverage the ENERGY STAR brand. CEE consensus comments are offered in the spirit of strengthening ENERGY STAR so it may continue to serve as our national marketing platform for energy efficiency.

CEE highly values the role ENERGY STAR plays in differentiating energy efficient products and services that the CEE membership supports locally throughout the US and Canada. We appreciate the opportunity to provide these comments.

## **CEE Supports Continuation of Technology Neutral Performance Requirements for Clothes Washers**

The first ENERGY STAR label for “resource efficient” clothes washers in 1995 had one qualifying model; by 2000 it represented nearly 10 percent of the market, thereby demonstrating the transformative power of ENERGY STAR’s binary label when it was applied equally to all potential

technologies and where the market was then free to dictate the desired amenity. As was the case in 2000 when some argued that ENERGY STAR levels could not be achieved with a top loading configuration, CEE continues to support a prevailing performance level that remains independent of configuration or technology. Otherwise, how would a typical consumer know that an ENERGY STAR top loader is permitted to consume a meaningful additional amount of energy for the same function performed by a front loader. CEE has consistently supported a technology neutral approach within its own performance specifications and the organization has been a strong supporter of ENERGY STAR over the years for its adherence to this important tenet of the Program. The ENERGY STAR label is most effective when one set of requirements can be applied to a product category, regardless of size or configuration, to ensure that consumers have access to equivalent energy savings across the full range of available product.

The statement in the Draft 2 release notes read, “Because top-load and front-load clothes washers perform the same basic function, EPA proposed in Draft 1 that they be considered together for purposes of ENERGY STAR qualification.” However, upon further review and based on manufacturer feedback on Draft 1, EPA has now indicated that there may be enough of a difference in functionality—particularly with respect to wash-time—to warrant treating the different configurations as two separate classes. We appreciate that rationales can be fashioned to suit the desired outcomes of various constituencies and would therefore suggest that data and scientific basis first be developed regarding the necessity of the performance difference, followed by careful balancing of the prevailing considerations that drive change in the established program. With respect to product size, EPA states that it “evaluated the model data for units that range from 1.6 to 2.5 cu-ft. Based on this analysis and in light of the unique consumer need met by this space saving product size,” EPA proposes new levels for this product category. Accordingly, we would appreciate the benefit of the data, scientific consideration, analysis and assessment of the relative program considerations presented, recognizing that we may reach the same conclusion. However, CEE finds that a feasibility assertion, unsupported by data<sup>1</sup>, does not offer a sufficient basis to compel this change to a fundamental tenet of the ENERGY STAR Program.

## **CEE Supports Cleaning and Rinse Performance Requirements in Version 7.0 of the Specification**

CEE recognizes that as technology improvements permit further reductions in energy and water use by clothes washers, it is important that the ENERGY STAR label continues to represent high efficiency with uncompromised cleaning and rinse performance. As such, CEE applauds EPA and

---

<sup>1</sup> We reference the Consumer Reports data presented in the Natural Resources Defense Council’s Draft 2 comments, which does not demonstrate a significant difference in cycle time for top versus front loading clothes washers.

DOE's efforts to develop a test procedure that; (1.) calls for evaluating cleaning and rinse performance, (2.) establishes the expectation that ENERGY STAR clothes washers will be evaluated against this procedure, and (3.) begins to build a dataset as a basis for establishing future performance requirements. We look forward to the opportunity to share and vet this data with our membership. Given the currently proposed effective date of March 7, 2015, and assuming the test procedure is appropriately reviewed and validated, CEE would support the incorporation of the completed cleaning and rinse performance test procedures within Version 7, but in any event, as soon as is practicable.

## **CEE Notes Potential Implications of the Delayed Effective Date on the ENERGY STAR Brand**

CEE would support consideration of an earlier effective date for the residential clothes washer specification. According to ENERGY STAR data, the market share of ENERGY STAR clothes washers had reached 60 percent in 2011 and the total number of clothes washers on the ENERGY STAR list increased by over 20 percent from 2011 to 2012. If Version 7.0 is not enacted until 2015, the market penetration of ENERGY STAR clothes washers likely will have been greater than 50 percent for a four year period. This circumstance has potential implications for the ENERGY STAR label as a distinguishing force in the market, and which may be worthy of deeper consideration in light of the maturity of the program in this product category. We also note that some CEE members have observed that this level of market penetration may be too high for them to effectively leverage ENERGY STAR as a platform for clothes washer programs. Lastly, given the similar timing of the specifications and the relationship between energy use of clothes washers and dryers, CEE would support a coordinated effective date for the ENERGY STAR clothes washer and clothes dryer specifications.

## **CEE Comments on “Connected” Criteria**

Since 2011, CEE has been actively engaged with EPA and manufacturers to assess the market conditions and specification requirements that would be necessary for the ENERGY STAR Program to successfully address “connected” (i.e. interactive communications with energy consumer devices for energy and non energy related purposes). Below please find our comments, which are consistent with previous comments submitted on the ENERGY STAR Refrigerator Specification, to consider as you evaluate connectivity for residential clothes dryers.

## **Continue to Deliver Cost-Effective Energy Savings to Consumers**

CEE stands committed to assist in supporting the incorporation of “connected” functionality into the ENERGY STAR Program while working to ensure that the Program continues to represent the core tenet of cost-effective energy savings to consumers. We have previously requested a basis to justify a 5% credit for “connected” appliances and expressed concern about compromising measurable energy efficiency benefits. As EPA moves forward with a temporary credit (pending

completion of a suitable DOE test procedure), we believe that ENERGY STAR products must continue to represent cost-effective energy savings independent of the potential benefits of connectivity, and are pleased to see EPA's affirmation of this point.

## We Applaud EPA's Commitment to Open, Non-Proprietary Communications and Seek Additional Specification of Pathways to Ensure Consumer Realization of Potential Benefit

CEE applauds EPA's proposal to disallow architectures that do not provide an open, non-proprietary means of achieving grid connectedness with the appliance within the bounds of the customer's premises via interoperability with open standard peripherals and applications. A number of communication technologies and protocols are presently used by consumers depending on available infrastructure and regulatory environments. Maintaining an appropriate focus on openness, function, and communication technology neutrality will allow EPA to define the salient objectives of a "connected" architecture for appliance integration, while avoiding conflicts with the efforts of standards bodies to develop, validate and ratify the evolving portfolio of intelligent grid communications topologies. These bodies include the Institute of Electrical and Electronics Engineers, Society of Automobile Engineers, American Society of Heating, Refrigeration Air-Conditioning Engineers, Consumer Electronics Association, American Society for Testing and Materials, National Institute of Standards and Technology as well as others. We encourage EPA to keep this high-level principle in mind as it develops tight language to ensure open non-proprietary communication.

Such an approach, coupled with the assurance that all communication pathways will be supported by a "connected" product, will ensure that the customer has the ability, and flexibility, to choose how their appliances are connected in the future, and will also avoid any onus on the customer to purchase ancillary devices to fully enable two-way connectedness. EPA's proposal appears to provide the flexibility necessary to allow appliance manufacturers, utilities, and other efficiency and demand response program administrators to support customers' needs. We note the following additional observations:

- While customer-supplied broadband may be a viable way to achieve connectedness within a customer's home, we note that there remains a significant number of customers nationally who do not have broadband and/or wireless access. Furthermore, there are customers who may not be willing to support the use of their broadband connection by the utility or appliance manufacturers. Given that the ENERGY STAR Program is a mass market program, we recommend that a "connected" appliance be equipped to communicate via all major communication pathways so as not to inadvertently preclude or limit market development and participation in potential utility programs. Requiring a standardized modular port is another option that would address the fact that program

administrators operating under diverse sets of conditions (regulatory, terrain, customer density, asset life cycle) are likely to use a variety of communication technologies to reach devices for demand response, energy efficiency, and other amenity afforded by “connected.” A modular approach that is based on an open standard is one option to address this diversity and provide consumers with flexibility

- If in the future, utilities and other third parties are required to interface with each manufacturer’s cloud-based solution, this requirement is likely to result in added cost and complexity. This, in turn, could impact the cost effectiveness of demand response and energy efficiency programs which would ultimately impact customers’ ability to take advantage of appliance “connectedness”.
- Cloud-based solutions could compromise customer data privacy and security due to the introduction of a third party into the flow of customer data and appliance control.
- Requiring that the appliances communicate in an open, non proprietary manner from within the customer’s premises provides the customer with the ability to choose who “manages” their appliances in the future. For example, a customer may choose to pay their local cable company to, in addition to managing cable broadcast recordings, manage when their appliances consume energy based on their current rate structure. However, a few months later, that same customer may decide to allow their security system provider to manage their appliance energy consumption along with their security settings and lighting to maximize savings and comfort. Open access would help ensure that the customer is afforded the ability to choose which offer to participate in based on her own needs and wants.

While we believe that an open, non-proprietary means for achieving two way connectedness with the appliances within the bounds of the customer’s premises should be a base requirement for obtaining “connected” certification, CEE supports alternative means as long as these are supported in addition to those that ensure that the customer has the ultimate say and that emerging communication pathways are not squelched. Further, we note the importance of the program supporting compatibility across multiple products and manufacturers so that customers continue to retain flexibility for future product choice across manufacturers.

## Additional Measures are Necessary to Minimize Risk to the ENERGY STAR Brand

CEE members who promote ENERGY STAR are driven by a desire to ensure, to the best of their ability, that the customer has a positive experience following an investment in an ENERGY STAR appliance. If a customer chooses to purchase a “connected” appliance as specified by the trusted ENERGY STAR Program, but is ultimately disappointed with the “connected” functionality or experience, how will EPA mitigate the possibility that both ENERGY STAR and the organizations that promote ENERGY STAR would be subject to a negative backlash? This is

particularly challenging given that much of the amenity that is expected to stem from “connected” is unproven. Significant areas of concern that we believe merit additional consideration and specification include: demarcation between the manufacturer and retailer claims regarding “connected” and the energy performance attributed to ENERGY STAR, the minimum testing for the energy and demand performance of “connected,” and expectations surrounding local utility DR program options (if any).

We support the use of a DOE test procedure (as the legal basis for making representations of energy performance) that includes all energy related aspects specified within “connected”. Further, we support having the minimum functionality that would enable the appliance to participate in a DR or IDSM (integrated demand side management) program to be specified and then verified for inclusion in the ENERGY STAR Program.

EPA has indicated that it will rely on a review of product literature and physical equipment inspections for the required specifications for “connected” that are not related to demand response. Therefore, EPA will be relying on claims by manufacturers, as opposed to testing, for some aspects of what the consumer may associate with a “connected” product. We believe that this strategy may be inadequate but at a minimum, additional planning and safeguards could help mitigate potential negative consequences. One risk mitigation approach to protect the integrity of ENERGY STAR as this new element of the Program is introduced would be to expressly prohibit manufacturer and retailer statements of association between “connected” features and the ENERGY STAR program. Messaging could be limited to the ENERGY STAR Program through the website administered by EPA until the brand effect of this program element is fully understood. Any assertion by manufacturers or retailers that suggests the ENERGY STAR Program is responsible for product performance associated with “connected” features could be grounds for dismissal of the product from the Program. Consultation with FTC regarding the logic and possible expansion of their new *Green Guidelines* to cover “connected” may also prove useful.

To mitigate potential consumer confusion and/or dissatisfaction, we recommend that EPA develop a communications strategy to disclose particular action taken— and when particular additional actions are planned — to allow a product to be listed as “connected” on the ENERGY STAR website product list. CEE recommends that EPA be explicit on the website where “connected” products are identified regarding the requirements and the date that the requirements are effective. We further recommend that EPA note that until a final DOE test procedure is in effect, it is only the manufacturers who are standing behind claims of “connected” functionality.

## Consider How to Address Price Signals in Addition to Reliability-Based Signals

Some CEE members are moving towards offering time-based pricing in the residential market. A customer may enroll in a time-based rate to capture the financial benefits of their “connected” appliance. In this scenario, signals sent to an appliance would be price-based, as opposed to reliability-based (examples of reliability-based signals would include Delay Appliance Load [DAL] and Temporary Appliance Load Reduction [TALR]).

Our understanding is that the current US Department of Energy (DOE) draft test procedure for DR functionality only addresses reliability-based signals, though time-based pricing is mentioned as a possible signal type. While reliability will be an important consideration for DR events, the price of power will also be important and could more frequently determine DR events, particularly for purposes of delaying and shifting load. Consequently, a test method that can evaluate the appliance’s ability to respond to price signals will be necessary to verify that the consumer will capture the financial benefits of DR. This is especially true of cycle-based intermittent appliances. The consumer’s ability to shift load to lower price, off-peak periods would be greatly enhanced with price signal capabilities.

We suggest that the DOE and EPA take steps to ensure that “connected” appliances are capable of receiving and responding to price signals as well as reliability-based signals.

CEE would once again like to thank the EPA for the opportunity to comment on the ENERGY STAR Clothes Washer Final Draft Version 7.0 Specification. Please contact CEE Program Manager Eileen Eaton at 617-337-9263 with any questions about these comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ed Wisniewski".

Ed Wisniewski  
Executive Director