September 28, 2012

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

Dear Ms. Stevens:

The Super Efficient Dryer Initiative respectfully submits the following comments in response to the ENERGY STAR® Draft 1 Version 1.0 of the Residential Clothes Dryer Specification released by the US Environmental Protection Agency (EPA) on August 28, 2012.

The Super-Efficient Dryer Initiative (SEDI) brings together manufacturers, government agencies, energy efficiency program providers, and retailers in support of a North American market for energy efficient advanced clothes dryers. To accomplish this goal, SEDI collects information, performs research, analyzes data, organizes stakeholders, and promotes technology improvements. SEDI is sponsored by Northwest Energy Efficiency Alliance, BC Hydro, National Grid, Long Island Power Authority, New Jersey's Clean Energy Program, and Efficiency Vermont. The Initiative is staffed by Vermont Energy Investment Corporation, Collaborative Labeling and Appliance Standards Program, and Grasteu Associates.

ENERGY STAR has provided invaluable support for SEDI's efforts over the past three years. SEDI worked closely with EPA on the development of the ENERGY STAR Emerging Technology Awards for Advanced Clothes Dryers and we welcome the opportunity to provide the following comments.

Regards,

The Super Efficient Clothes Dryer Initiative Team:

Chris Badger (VEIC)

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SEDI Comments on the ENERGY STAR® Program Requirements Product Specification for Clothes Dryers: Eligibility Criteria Draft 1 Version 1.0

ENERGY STAR Clothes Dryer Market Strategy

SEDI supports ENERGY STAR's efforts to develop a specification that provides clear market signals to industry for the design and introduction of energy efficient clothes dryers. We anticipate that a strong ENERGY STAR specification will support the development of a robust market of qualified efficient clothes dryers with a range of different performance levels, technologies, and price points.

With the development of the ENERGY STAR Emerging Technology Award (ETA) for Advanced Clothes Dryers, EPA took an important first step. SEDI sees an ENERGY STAR for clothes dryers program as another critical part of a comprehensive market introduction strategy and we strongly support this next step. However, we are concerned that neither the Draft 1 Version 1.0 Clothes Dryer Cover Memo (the cover memo) nor the Draft 1 Version 1.0 ENERGY STAR Program Requirements Product Specification for Clothes Dryer: Eligiblity Criteria (the draft specification) address how the ETA for clothes dryers and the ENERGY STAR clothes dryer program will work together in the market. Clear guidance for manufacturers, retailers, and energy efficiency program providers is needed to support the continued advancement of efficient clothes dryers in the market.

SEDI supports the establishment of two energy performance levels, or two performance tiers, as a way of allowing different manufacturers to introduce a range of new, more energy efficient products. We believe that these two tiers should be defined by the ENERGY STAR Program Requirements Product Specification for Clothes Dryer (lower tier) and the ETA for clothes dryer requirements (higher tier). We recommend that EPA clarify how these two ENERGY STAR program vehicles will work together both in the short term and over time. ENERGY STAR has not said how far into the future qualifying products will be able to apply for the ETA. In addition, the two ENERGY STAR program vehicles measure performance using two different editions of the DOE clothes dryer test procedure. We believe that the ENERGY STAR performance tiers should be designed to be consistent and complementary, and that EPA should say how it wants clothes dryer technology to become more efficient under ENERGY STAR, including a process and timeline for resolving issues like the different test procedures.

Definitions

As stated on lines 81-82 of the draft specification, "EPA is harmonizing the definitions in Section 1 with the definitions in the U.S. Department of Energy (DOE) appliance standards program." Unfortunately, limiting clothes dryer types to those included in the DOE appliance standards program may also limit the introduction of new, high efficiency products notably full-size, ventless electric clothes dryers and 120V ventless electric compact dryers. For this reason SEDI recommends that ENERGY STAR expand on the definitions used by U.S. DOE to include definitions for additional products that may be introduced and that have the potential to deliver energy savings to consumers.

Minimum Efficiency Levels

In 2011, SEDI engaged several clothes dryer manufacturers in order to better understand the energy saving potential for North American conventional clothes dryers. The scope of these conversations was limited to electric dryers. Manufacturers identified several modifications to existing technology (e.g., increasing the air tightness of the unit) which combined together would substantively increase energy efficiency. In addition, recent Ecova testing identified a North American electric clothes dryer that increased its efficiency by 8%[1] when operating in "eco-mode[2]". Based on this information, we believe that the suggested Combined Energy Factors in Table 1 will be easily met by clothes dryer manufacturers. As a result, it is possible that a high percentage of North American clothes dryers could meet the ENERGY STAR specification in a short period of time, requiring a rapid revision of the specification. If EPA's intention is to not revise the clothes dryer specification for several years, we recommend increasing the minimum Combined Energy Factors to levels representing a 15-20% improvement over baseline for electric clothes dryers.

Maximum Drying Time Requirement

The ETA for clothes dryers specification establishes an energy performance level which we believe can only currently be met by clothes dryers using heat pump technology, and a maximum cycle length (75 min) which we believe a heat pump dryer built for the North American market will be capable of meeting. The draft ENERGY STAR specification includes a maximum cycle length requirement (50 min) that would exclude most, if not all, of the heat pump dryers currently available on the European market. This creates a scenario where a very efficient product may be eligible for the ETA, but not for the ENERGY STAR for clothes dryers labeling program. We are concerned that this divergence between the two ENERGY STAR clothes dryer performance tiers is not in the long-term best interests of a vibrant North American market for super efficient clothes dryers.

SEDI shares EPA's concern that a too-long cycle length might be a barrier to consumer acceptance, but we have seen no evidence that a specific cycle length creates a significant barrier. Rather than include a maximum cycle length as an ENERGY STAR requirement, we recommend that the specification adopt similar criteria to the ETA for maximum cycle length for a specific performance level.

Automatic Termination Criteria and Timed Drying Cycle

Laboratory testing of dryers has demonstrated a wide range in performance of different automatic termination practices in clothes dryers and highlights the difficulties of developing an ENERGY STAR specification for clothes dryers when full cycle testing is not included in the 2011 DOE test procedure. Absent an appropriate test procedure, SEDI encourages ENERGY STAR to develop an appropriate supplemental test for automatic termination to accurately differentiate the performance of clothes dryers with different automatic termination practices.

[1] The clothes dryer was tested according to the DOE 2005 clothes dryer test procedure.
[2] The final report summarizing this testing will be published in early October 2012. Once the report is published, it will be posted at CLASP's website: www.clasponline.org.

We believe that historically clothes dryer users have not been encouraged to use a timed drying cycle over an automatically terminated cycle or vice versa. SEDI has found no evidence to corroborate manufacturers' statements (as noted in the cover memo) that a "significant portion of dryer users continue to use timed drying," however this may very well be the case. We agree with EPA that for automatic termination to be an effective energy efficiency strategy, users must be encouraged to use it instead of timed drying. However, we do not agree that the best way to achieve this is necessarily limiting the length of timed drying cycles. Heat pump clothes dryers need several minutes to come up to full operating temperature. Limiting the timed drying cycle could mean that a heat pump dryer cannot dry properly. There is also the general danger of upsetting users who are not used to using automatic termination, and who may come to associate ENERGY STAR qualification with having to repeatedly set a short timed drying cycle in order to dry clothes.

SEDI proposes that ENERGY STAR collaborate with clothes dryer manufacturers to establish guidelines for a clothes dryer user interface that offers an unequal choice hierarchy that will encourage user selection of the automatic termination option rather than timed cycles. ENERGY STAR could further enhance the unequal user choice hierarchy by requiring manufacturers to clearly identify the automatically terminated cycle option as the primary or preferred efficient option through labeling, placement on the control panel, and language in the product manual.

Achieving Benefits Through "Connected" Functionality

SEDI agrees that maintaining openness, function, and communication technology neutrality toward "Connected" functionality in the ENERGY STAR clothes dryer requirements will allow EPA to avoid conflicts with the many interested parties working on integration of home appliances into a future, more intelligent grid. We support EPA's plans to work with DOE to develop a test procedure for Connected functionality. We also believe that any performance credit awarded for Connected functionality should be proportional to the energy efficiency benefit provided by that functionality, and not provide a way for manufacturers obtain ENERGY STAR qualification for clothes dryers that do not actually provide significant energy savings in typical use.

Warranty

As it is likely that industry will deploy new technology to meet the performance levels in the draft specification, SEDI strongly supports EPA's efforts to ensure that qualifying products are covered by a strong warranty. Rather than commenting on whether the length of time proposed by EPA in the specification is appropriate or not, we suggest that EPA look to the precedent set in the residential light fixtures specification and set the warranty requirements for ENERGY STAR clothes dryers at double the current industry standard warranty duration.