May 26, 2010

Katharine Kaplan
Energy Star Product Development
US Environmental Protection Agency
Washington, D.C. 20460

Dear Ms. Kaplan:

This letter is LG Electronics' response to the EPA's notification letter dated May 14, 2010 concerning the ENERGY STAR status of "combination washer-dryers". LG Electronics continues to support the ENERGY STAR program and we appreciate the opportunity to comment on the proposed action.

In summary, LG Electronics does not agree with the EPA's proposed removal of clothes washers with optional drying features from the ENERGY STAR program. In addition, not enough time has been allotted for manufacturers to properly assess the impact of the EPA's proposal and prepare comments. Further, the proposed schedule for implementing the proposed change in ENERGY STAR status will pose a substantial burden on manufacturers.

Clothes washers that offer an optional drying feature are marketed and sold primarily to multi-dwelling property owners or developers of multi-dwelling properties. These clothes washers are purchased as part of the design of efficient and convenient residences or as part of retrofits of existing residences where installing vents would be expensive, undesirable, not feasible or simply not allowed. Such clothes washers also have a small footprint that allows installation in relatively small areas within a residence. Building owners and developers depend on the availability of such ENERGY STAR-rated products in order to receive project funding, certification to "green" building requirements such as LEED and to meet local building codes.

LG Electronics requests that the EPA reconsider the decision to remove clothes washers with an optional drying feature for the following reasons:

1. **"All-in-one combination washer-dryers" are principally clothes washers.**

   The primary function of a clothes washer with an optional drying feature is to wash clothes. As is the case with all clothes washers, clothes may be hung out to dry. In the case of a clothes washer with an optional drying

feature, the user may or may not decide to use the optional drying feature just as they may or may not decide to use other optional features that use energy.

This is not consistent with the way these units are marketed. None are advertized as "washing machines with optional drying function." They are advertized as all-in-one washer dryers, often with a particular emphasis on the latter.

2. **Consumers shopping for clothes dryers will not purchase a clothes washer with an optional drying feature.**

   As stated above, most clothes washers with optional drying features are purchased by property owners or developers. If the purchaser has decided to purchase a clothes dryer, they will not purchase a clothes washer with an optional drying feature, since that product's primary function is to wash clothes.

   Since an all-in-one unit is both a dryer and a washer, one could also argue that it's a clothes dryer with an optional washing feature.

3. **LG-brand clothes washers with optional drying features meet or exceed the ENERGY STAR requirements for clothes washers.**

   LG Electronics' model WM398#H clothes washer with optional drying feature has an MEF of 2.54 and a WF of 3.4, greatly exceeding the ENERGY STAR requirements of MEF = 1.8 minimum and WF = 7.5 maximum. This is markedly better energy and water efficiency than many other ENERGY STAR-qualified clothes washer models that do not include an optional drying feature.

Great, this kind of data would be useful in petitioning EPA to establish a category for all-in-one washer/dryers.

4. **There are no ENERGY STAR requirements of clothes dryers.**

   The ENERGY STAR website (http://energystar.custhelp.com/cgi-bin/energystar.cfg/php/enduser/std_adp.php?p_faqid=2984&p_created=1171989382) states: "there is not an ENERGY STAR label for clothes dryers because most dryers use similar amounts of energy. The Department of Energy's Appliance Standards program conducted a detailed study which found that the clothes dryers on the U.S. market do not vary significantly from each other in terms of energy consumption. This is also the reason why the Federal Trade Commission (FTC) does not require clothes dryers to have a yellow EnergyGuide label."

If clothes dryers all use about the same amount of energy to dry the same type and amount of clothes, then comparing the clothes washing energy consumption of clothes washers with optional drying features is appropriate and relevant; in fact, given the statement on the ENERGY STAR website, comparison of clothes washing energy consumption is the *only* means of comparison of clothes washers with optional drying features.

This may be demonstrated mathematically as follows:

$$\begin{aligned} & A_{cw} + X_{cd} = A_{tot} \\ - \ & (B_{cw} + X_{cd} = B_{tot}) \\ & \text{----------} \\ & A_{cw} - B_{cw} = A_{tot} - B_{tot} \end{aligned}$$

Where

A_{cw} = Washer A clothes washing energy
X_{cd} = Clothes drying energy (both Washer A and Washer B)
A_{tot} = Washer A total energy consumption
B_{cw} = Washer B clothes washing energy
B_{tot} = Washer B total energy consumption

This means that the difference in total energy consumption between two clothes washers with optional drying features is exactly the same as the difference in their respective clothes washing energy consumption. Therefore, comparison of clothes washing energy is a completely valid means of comparing two clothes washers with optional drying functions.

Lack of requirements for clothes dryers does not mean it is OK to put a label on clothes dryers.
Lack of differentiation in energy use among clothes dryers would not make it OK to put a label on clothes dryers.
And EVEN if the former weren't the case, recent studies show there IS substantial differentiation among dryers.

5. There are means to avoid consumer confusion as an alternative to removing these clothes washers from the ENERGY STAR program.

Simply requiring a statement such as "energy consumption includes the clothes washing function only" on the product in conjunction with the

Energy Star label would avoid any possible consumer confusion concerning the stated energy consumption.

Energy Star prefers to label entire products.

6. **Consumers are just as likely to assume that an ENERGY STAR label on the washer part of a conventional stacked washer-dryer applies to both the washer and the dryer.**

   According to the ENERGY STAR website, there are stacked combination washer-dryer units where the washer unit is ENERGY STAR qualified and, of course, the dryer cannot qualify for ENENRGY STAR. But the manufacturer is allowed to put an ENERGY STAR label on the clothes washer part of the unit. This could easily lead to a consumer assuming that the entire stacked unit, including *both* the washer and the dryer, are ENERGY STAR qualified. Most consumers do not know that clothes dryers may not be labeled as ENERGY STAR-qualified.

   Good point. Maybe we should consider taking those off the list too.

7. **Clothes washers have built-in optional features associated with the washing function that are not included in the energy consumption measurements required to achieve ENERGY STAR status (examples: sanitary and steam wash functions)**

   Almost all clothes washer models on the market today have optional features. Many of those clothes washers are currently qualified for ENERGY STAR. For example, many clothes washers have options such as a sanitary cycle or a steam wash cycle; there are no requirements in the ENERGY STAR program specifications that those options be tested and included in the total energy consumption value for ENERGY STAR qualification. Sanitary or steam cycles use energy. An optional drying feature also uses energy. We see no reason to treat these options differently, particularly since there are no requirements to test these optional features for ENERGY STAR qualification.

   This discussion in the 1997 Final Rule shows that the intent of modifying the language in Section 1.7 was not to permit the exclusion of *all* wash/rinse combinations locked out of the normal cycle, but rather to permit the exclusion of only those cycles that may be used infrequently and thus would not contribute to an accurate representation of the energy consumption as used by consumers.

8. **Clothes washers with optional dryer features are commonly purchased as part of LEED building qualification. Delisting from ENERGY STAR will severely impact building owners and developers.**

Building owners and developers depend on the availability of ENERGY STAR-qualified appliances when they are either retrofitting existing residential buildings or designing new buildings. The availability of ENERGY STAR-qualified clothes washers with optional drying features allow building owners or developers to place those units within residences without having to put holes in the building envelope or waste space for plenums. When builders place orders for such units, they may be counting on the ENERGY STAR qualification to obtain points toward LEED certification. Many existing orders may depend on the ENERGY STAR status of clothes washers with optional drying features. If the ENERGY STAR qualification for these units is removed, developers and building owners will have to redesign their buildings to accommodate taller stacked units or clothes washer and dryer pairs; they may have to add plenums and punch holes in the building envelope for ventilation.

EPA is pleased at building owners' and operators dedication to ENERGY STAR and will work with stakeholders to address concerns such as these.

9. **There are currently no definitions of what constitutes a "combination washer-dryer" either in United States code or in ENERGY STAR program requirements.**

   "All-in-one combination washer-dryers" are clothes washers with an optional drying feature. Other than the obvious size difference, there is no difference between the function of stacked combination washer-dryers or separate clothes washer-dryer pairs and a clothes washer with an optional drying feature. Users may have to transfer clothes to the separate dryer, but otherwise the products are functionally the same. The user has the *option* of using a dryer or a drying feature.

   Lack of definition is not justification for a label.

10. **This issue is more complex than described by the EPA in its notification letter and thus requires more discussion amongst the stakeholders than has been allowed.**

    As you may have realized by now, this is a complex issue and it deserves careful consideration. LG Electronics respectfully requests that the EPA reconsider their decision in this matter and allow time to consult with manufacturers.

    EPA is fully committed to engaging with stakeholders on complex issues while working quickly to maintaining the integrity of the ENERGY STAR brand.

11. Removal of clothes washers with optional drying features from the ENERGY STAR program will cause significant problems for manufacturers and consumers, including contractual issues, loss of rebates and potential legal issues.

Manufacturers already have clothes washers with drying functions in production, in transit and in warehouses. Those products are labeled with the ENERGY STAR logo and are currently listed on the ENERGY STAR website as qualified products. If the EPA removes those products from the ENERGY STAR qualified products list on the website, products that were properly labeled and qualified as ENERGY STAR will not be eligible for rebates, since officials check the ENERGY STAR site for qualifying products (and they will not find those models listed). That is damaging to consumers and manufacturers alike.

Further, manufacturers may have existing contracts for sale of ENERGY STAR products that are in transit now but will arrive after the proposed June 11th delisting date. When an auditor checks the ENERGY STAR status of clothes washer models with optional drying features, they will find that the products are not listed on the ENERGY STAR website even though they are labeled as meeting ENERGY STAR requirements. Those auditors may deny LEED qualification points to the building owner or developer. This kind of situation may lead to the voiding of sales contracts or even legal action.

12. Clothes washers with optional drying features have enormous potential environmental benefits that fit well with EPA's general goals.

Clothes washers with optional drying features offer many environmental advantages over traditional laundry pairs:

- Less material is used in their manufacture, thus conserving resources
- They weigh much less, thus requiring less energy to transport and more units may be transported within the same space
- They do not require holes in building envelopes for vents, thus eliminating one source of heat loss from buildings
- Since air is drawn from warm inside air, less energy may be needed to heat the air for the drying function (particularly so in colder climates)
- Because heated air is not dumped outside via venting, some of the energy used to heat the air for drying clothes may be conserved inside the residence as heat.
- The overall carbon footprint is likely lower
- There is less material to recycle, thus reducing the recycling load

- They require less space for installation, thus freeing up more space for other uses or requiring less overall space per dwelling

LG Electronics respectfully requests that the EPA reconsider their decision to remove clothes washers with optional drying features from the ENERGY STAR program. If the EPA does not change its decision, LG Electronics suggests that a substantially greater time for implementation of this change be granted; that amount of time should be on the order of six months to one year. LG Electronics reiterates that availability of ENERGY STAR-qualified clothes washers with optional drying features is critical for building owners and developers, as they provide substantial benefits such as small footprint, no vents or plenums and points toward LEED ratings of buildings. Finally, we note the enormous potential for environmental benefit that are possible through use of clothes washers with optional vent-less drying; we hope that the EPA will agree that such products should be promoted via the ENERGY STAR program.

Sincerely,

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