



## NRDC Comments on EPA's ENERGY STAR Most Efficient 2013 Proposed Criteria

October 12, 2012

On behalf of the Natural Resources Defense Council (NRDC) and its more than 1.3 million members and online activists we respectfully submit the following comments on the EPA ENERGY STAR's September 14, 2012 proposed criteria the Most Efficient 2013 label. NRDC has been a longtime supporter of the ENERGY STAR program and strongly supports the addition of the Most Efficient designation. Most Efficient fills a much needed gap by allowing consumers to identify top performing products. NRDC is pleased to see that EPA has decided to make the Most Efficient designation a permanent part of the ENERGY STAR program. We are also pleased to see EPA updating the Most Efficient specification on a yearly basis as this helps ensure that the specifications stay fresh and meaningful.

NRDC supports most of the criteria proposed by EPA for the Most Efficient 2013 label. We are supportive of the additions of windows, monitors, and fans to the Most Efficient program, and also recommend that EPA consider adding three additional product categories to the Most Efficient program at this time: screw-based bulbs, computers, and room air conditioners. EPA should continue to assess in future years other products that would be good additions to the Most Efficient program. We offer the following comments on the Most Efficient program, the proposed Most Efficient criteria, and products which we think should be added to the Most Efficient program.

### General Comments on the Most Efficient Program

*NRDC recommends that EPA begin to collect sales data for Most Efficient products and tracking data over time on the maximum efficiency level available. EPA should begin to collect market sales data for Most Efficient products in addition to standard ENERGY STAR products. Even though EPA would only have the first two or three quarters of data when assessing the Most Efficient criteria for the next year, this information would be immensely useful when assessing whether the criteria need to be revised. As discussed below for clothes washers, an increase in model availability does not necessarily justify an increase in the Most Efficient criteria if it is not also accompanied by an increase in market share and/or an increase in the maximum efficiency available.*

*EPA should consider setting Most Efficient targets for future years (or coordinating reach targets with DOE) to encourage the manufacture of even more efficient products. Reach targets set for a date in the future at levels beyond what is available on the market today would encourage manufacturers to develop even more efficient products which could be the next year's Most Efficient. DOE's volume purchase programs, such as the*

R-5 windows specification and the Rooftop Unit Challenge are both successful examples of reach specifications. These reach specifications give manufacturers a specific target to design for that is achievable, but may be beyond what is available on the market today. NRDC does not have a firm opinion at this point on whether these reach targets should be explicitly part of the Most Efficient program or should just be utilized by the Most Efficient program when available (as discussed in the below example for windows) and developed in coordination with DOE.

### Comments on Proposed Specifications

*NRDC supports the proposed criteria for several Most Efficient product categories, including:*

- **Boilers.** NRDC supports the continuation of the 95 AFUE criteria for gas boilers, given the fact that there is still relatively low model availability at this level. NRDC notes that based on its analysis of the 2012 Most Efficient specification, it calculated that 150 models would qualify at the proposed levels. However EPA notes that at this point only 71 of these products have been recognized as Most Efficient. NRDC encourages EPA to do further manufacturer outreach if it has not already to get these additional eligible models registered as Most Efficient.
- **Furnaces.** NRDC continues to support the 97 AFUE specification for non-weatherized gas furnaces. As noted in the Stakeholder Webinar, these products still only account for 1.2 percent of the models on the market.
- **Refrigerator-freezers.** NRDC continues to support the proposed criteria for Most Efficient refrigerators given the relatively low number of products that have been certified as Most Efficient.
- **Televisions.** NRDC supports the revised criteria for Most Efficient televisions.

*NRDC encourages EPA to increase the EER requirement for all types of air conditioners to an EER 13 or higher and to consider a single air conditioning specification for future Most Efficient revisions.* NRDC recommends that EPA increase the EER requirement for air conditioners and heat pumps (including ductless) to an EER 13 or greater. This would align the criteria with the highest CEE tier, which would aid program design and there is market availability at this EER level. Additionally, the CEE criteria have not been updated in almost four years, indicating that if anything, EPA should consider going beyond these criteria in the Most Efficient specification.

NRDC strongly supports the explicit inclusion of ductless air conditioners and heat pumps in the Most Efficient program. As noted in previous comments on the Most Efficient 2012 proposed criteria, ductless mini- and multi-split systems can achieve efficiencies much higher than standard air conditioners. However, we disagree that these products should be held to a different standard than other air conditioning systems, which could be potentially misleading to a consumer looking to buy the most efficient air

conditioning system possible. We urge EPA to align the SEER, EER and HSPF requirements for ductless systems with those for ducted split systems. Eventually EPA should move towards a single specification for air conditioners. It is ok if under this future specification, packaged systems are held to a comparatively higher standard, similar to the way that larger refrigerators must meet higher criteria.

*NRDC encourages EPA to look at market share data and increase in maximum efficiency available for clothes washers.* EPA proposes to strengthen the MEF for large washing machines from 3.0 to 3.2 and the WF requirement from 3.3 to 3.0 due to the more than doubling of market availability for washers meeting the Most Efficient specification. From the scatter plot of ENERGY STAR qualified models on slide 13 of EPA's September 12, 2012 webinar on the Draft 1 Version 7.0 clothes washer specification included as Figure 1 below, it appears that there are several models that have just met either the Most Efficient MEF or WF, indicating that manufacturers either added new models that met the Most Efficient specification or redesigned existing models to meet the specification. While this may justify an increase in the Most Efficient criteria, NRDC is not comfortable supporting this increase without unit shipment market share data, especially for a small increase in the efficiency criteria as proposed by EPA. Basing an update of Most Efficient criteria solely on market availability may discourage manufacturers in the future from designing to the Most Efficient specification, for the fear that it will be updated immediately due to too many available models. That being said, if the market share has increased substantially or there has been an increase in maximum efficiency available (or a substantial increase in the number of models available beyond the current specification) this would likely justify updated criteria.



*Figure 1: ENERGY STAR qualified clothes washers.*

*NRDC supports the addition of the windows to Most Efficient and encourages EPA to revise the window specification to align exactly with the DOE R-5 volume purchase program specification. NRDC encourages EPA to consider a higher target for windows in the near future.* NRDC is pleased to see the addition of windows to the Most Efficient program and strongly supports criteria that would support the further market availability of triple and quad-pane windows. However, we urge EPA to align the criteria for Most Efficient with the DOE R-5 volume purchase program specification and increase the maximum U-value for operational windows to 0.22. Significant thought and deliberation went into the DOE criteria and in general it enhances the effectiveness of the Most Efficient program to align with other high performance specifications, as practical.

While we support the requirement of a 0.22 U-value for the Most Efficient criteria at this time, we believe that regular ENERGY STAR should increase its requirements in the near future to require a U-value of 0.22 or better and that EPA should work in conjunction with DOE to develop the next generation of reach criteria for windows, which could be the basis for future Most Efficient specifications.

*NRDC supports the addition of computer monitors to the Most Efficient program.* Given the fast pace of change in the market for computer monitors and the availability of products that greatly exceed the regular ENERGY STAR criteria, NRDC is strongly supportive of the addition of computer monitors to the Most Efficient specification.

*NRDC supports the addition of ventilating and ceiling fans to the Most Efficient program.* NRDC supports the addition of ventilating and ceiling fans to the Most Efficient program and supports the proposed the criteria. As EPA notes, fans are a good fit for the Most Efficient program given the dramatic increase in efficiency that can be achieved by DC motors.

#### Product Categories EPA Should Consider Adding to Most Efficient

*NRDC recommends that EPA consider adding a Most Efficient Designation for Screw-based bulbs.* To establish a national “reach” target for manufacturers to design to and for utility programs seeking to achieve greater savings via their rebate programs, NRDC would like to see EPA add screw based light bulbs to its Most Efficient labeling program. This specification would build off the ENERGY STAR specification and add more stringent requirements for efficiency and lifetime. Should EPA choose to pursue this further it will need to decide whether to keep the specification technology neutral or whether to have separate specs for CFLs and LEDs, and whether to have specifications for omnidirectional and/or directional bulbs.

*NRDC recommends that EPA consider adding a Most Efficient Designation for Room Air Conditioners.* There is a significant range of efficiency in ENERGY STAR room air conditioners from 10 to 30 percent better than the federal standard. However, there are only a few models that achieve a 20 to 30 percent improvement over the federal standard,

indicating a potential role for Most Efficient. Additionally, it is difficult for utilities to do rebate programs for room air conditioners as they are “optional” appliances, making further consumer information tools, such as Most Efficient even more important. We would recommend setting the Most Efficient specification at a minimum EER of 11.7, to correspond with units that save at least 20 percent beyond the federal standard. There are seven models in the ENERGY STAR qualified product list that meet this specification, from two manufacturers.

*NRDC recommends that EPA consider adding a Most Efficient Designation for Computers.* Computer efficiency is continuing to increase rapidly due to a high rate of technological progress and innovation in the consumer electronics industry as well as strong mobility and battery life market drivers. This leads ENERGY STAR specifications for computers to be rapidly outdated, making it difficult for utilities to use the specifications for incentive programs. Given the time required to update specifications and the 9-month period before they become effective, a Most Efficient Designation would continue to drive energy efficiency improvement and support utility programs during those periods when the qualification rate for ENERGY STAR far exceed 25 percent.

Thank you for the opportunity to submit these comments.

Sincerely,



Meg Waltner  
Energy Efficiency Advocate