

Summary and Response to Stakeholder Comments Recieved on the  
ENERGY STAR Program Final Draft Version 7.0 Clothes Washer Specification

REF NO.	Topic	Comment Summary	ENERGY STAR Response
1	Definitions	EPA's definitions should never differ from those in the regulatory text. Accordingly, EPA should harmonize the commercial clothes washer definition with the regulatory definition. Any variation in definitions creates confusion for stakeholders and consumers. This includes keeping "other commercial applications" in the ENERGY STAR definition. EPA should not allow products which fall under "other commercial applications," but should address this in the Scope section.	<p>The final Version 7.0 specification includes the commercial clothes washers definition proposed in the final draft, notwithstanding a typographical correction, changing "defined" to "designed."</p> <p>EPA does not agree with the concern that the proposed definition would result in confusion for typical consumers, who would not be reviewing a product specification. EPA continues to believe that amending the definition to remove "other commercial applications" is the most straightforward way to clarify what is covered in the specification and has retained the proposed definition.</p>
2	Scope	Stakeholder is unaware of any analysis on the impact to consumers or on energy savings from extending ENERGY STAR to larger commercial clothes washer units. ENERGY STAR needs to provide this data for stakeholders review on whether it is appropriate to extend eligibility to commercial clothes washers not currently covered.	EPA has not proposed to expand the scope of commercial clothes washers covered through the Version 7.0 specification development process. As part of the Version 6.0 specification finalized in May 2012, EPA modified the commercial clothes washer definition to avoid excluding high-efficiency models that had narrowly exceeded the 3.5/4.0 cu-ft. cutoff. This decision, supported by several stakeholders, was also based on the consideration that larger washers may enable consumers to wash larger loads and reduce the number of load washed--leading to further energy and cost savings.
3	Scope	Stakeholder opposes the 6.0 cu-ft. capacity limit on residential clothes washers. EPA has not shown a valid reason or any data for departing from the DOE definition, which is insufficient.	In the final Version 7.0, the 6.0 cubic foot capacity limit for residential clothes washers was removed, in light of the larger capacity washers entering the market that have approached this limit. EPA seeks to avoid unintentionally excluding larger efficient residential clothes washers from the program
4	Scope	ENERGY STAR should continue to exclude combination washer-dryers from the scope of the program until a test method is developed to account for the additional water used by this product category.	EPA shares the stakeholder's concern about the water use during drying by some combination washer-dryers, that is not currently captured in the clothes dryer testing. In response to some manufacturer interest around this category of products, EPA signaled in Draft 1 that the Agency welcomed any additional performance data that would allow for further analysis of potential combination washer-dryer efficiency opportunities as well as further investigation of the added water use. EPA did not receive additional data and did not further consider this category for inclusion in Version 7.0.

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5	Qualification Criteria	Stakeholder supports EPA's proposal to separate product categories and levels for top- and front-loading clothes washers but believes that EPA did not need to re-consider an issue that DOE has already decided considering that the DOE standards provide the foundation for the ENERGY STAR program.	EPA has retained separate top- and front-loading clothes washer product classes in the final Version 7.0 specification. Separately specifying energy and water use criteria for front and top loading clothes washers provides the program with the ability to continue to recognize a selection of highly efficient top-loading clothes washers while better ensuring only the most efficient front-loading clothes washers qualify as ENERGY STAR. As noted in a previous comment response matrix, EPA will develop new savings messaging for consumers that will reflect this approach. While, in most cases, EPA strives to harmonize with DOE definitions and product classes, EPA reserves the right to consider modifications in order to pursue energy saving opportunities and product differentiation for consumers, consistent with ENERGY STAR guiding principles. In such cases, EPA does and will continue to
6	Qualification Criteria	Separating top-loading and front-loading product categories is not warranted for residential washers and will deceive consumers who do not realize that top-load clothes washers use a meaningful amount of additional energy. Sales volume should not be used as justification to separate product categories. EPA should consider a single product category for top- and front-loaders in future specifications.	
7	Qualification Criteria	EPA needs to use DOE's product class determinations and DOE has not identified a separate product class for units between 1.6 and 2.5 cu-ft. The ENERGY STAR program should not be used to push products from the market, which would occur if the levels EPA proposes for units larger than 2.5 cu-ft. are used across all units. Rather than identify a separate product class, EPA should work with manufacturers to evaluate criteria for front-loading washers that allow smaller units to qualify.	The final Version 7.0 specification includes a separate product category for small, 1.6 to 2.5 cu-ft, residential clothes washers. EPA recognizes that while certain stakeholders support allowing 1.6 to 2.5 cu-ft clothes washers to qualify as ENERGY STAR, other stakeholders opposed this new product class. EPA continues to believe it is important to recognize highly efficient small clothes washers due to the unique value they provide consumers with space constraints. EPA shared its product performance data and analysis with all stakeholders with the Draft 2 proposal. EPA looks to leverage product classes created by DOE for the minimum standards program as long as it makes practical sense to do so in the ENERGY STAR program. EPA maintains that rather than pushing products from the market, the creation of a separate product class will allow for a broader range of models, including a selection of models that are less than 2.5 cubic feet in capacity, to be eligible for the ENERGY STAR.
8	Qualification Criteria	Stakeholder requests the data and analysis conducted to assess if a separate product class for products less 2.5 cu-ft is warranted.	
9	Qualification Criteria	The creation of a separate category for those washing machines with capacities smaller than 2.5 cu-ft. is supported.	
10	Cleaning and Rinse Performance	Currently, there is nothing to indicate that performance is a concern at the proposed levels. Nor is there any indication that performance will be a concern in the future; therefore additional, burdensome testing and reporting is not required. Furthermore, it is unnecessary to have a test method and requirement for cleaning and/or rinse performance as the market will regulate performance.	Based on stakeholder feedback, and with an interest in ensuring ENERGY STAR products perform as well as conventional products, EPA believes it is increasingly necessary for the program to understand how performance dimensions, such as cleaning and rinse performance, vary with energy and water use. Once collected, this information would allow EPA to more fully evaluate cleaning performance and energy and water use concurrently during future specification revisions. EPA and DOE will continue to discuss with

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11	Cleaning and Rinse Performance	ENERGY STAR should continue the development of a cleaning and rinse performance test and maintain the reporting requirement for the results of these tests. EPA should make this requirement applicable to all models regardless of certification date to avoid the possibility of any gaming.	stakeholders how best to move forward with test procedure development and cleaning/rinse performance data collection for clothes washers. In the interim, EPA has removed the placeholder for a reporting requirement, from Version 7.0
12	Connected	ENERGY STAR products must continue to represent cost-effective energy savings independent of the potential benefits of connectivity and stakeholder is pleased to see EPA's affirmation of this point.	EPA develops product specifications using the program's Guiding Principles. The Agency agrees it is important that efficiency requirements provide cost-effective savings for consumers. As part of the effort to define new optional connected criteria, EPA seeks to recognize new opportunities to enable new opportunities for energy savings and convenience, i.e., through diagnostics/alerts and feedback on energy use.
13	Connected	There are concerns regarding the unproven amenity provided by connected appliances, in particular the 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 the expectations of surrounding local utility DR program options (if any). The use of the DOE test procedure for all energy related aspects of connected and having minimum functionality that would enable the appliance to participate in a DR or IDSM program to be specified and then verified for inclusion in the ENERGY STAR program is supported.	EPA notes that while the DOE test procedure will be limited to demand response criteria, all connected criteria will be subject to

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14	Connected	<p>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. This strategy may be inadequate, but at a minimum, additional planning and safeguards could help mitigate potential negative consequences. To mitigate potential consumer confusion and/or dissatisfaction, one risk mitigation approach would be to expressly prohibit manufacturer and retailer statements of association between "connected" features and the ENERGY STAR program. Any assertion made by manufacturers or retailers that suggests the ENERGY STAR Program is responsible for product performance associated with "connected" features could be grounds for dismissal from the program. Consultation with FTC regarding the logic and possible expansion of their new Green Guidelines to cover "connected." EPA should further note that until a final DOE test procedure is in effect, it is only the manufacturers who are standing behind claims of connected functionality.</p>	<p>evaluation by a recognized third party lab in order to be certified as ENERGY STAR. EPA appreciates this feedback and will consider it as the communication plan to support newly identified connected features is developed in collaboration with stakeholders. EPA believes ENERGY STAR recognition of products with connected functionality can help to facilitate consumer adoption of these products and enable utility program sponsors and other interested parties to identify and possibly, provide some incentive for products that are capable of participating in smart grid/ energy management programs.</p>
15	Connected	<p>As some utilities are moving towards offering time-based pricing in the residential market, a consumer may enroll in a time-based rate to capture the financial benefits of their connected appliance. The current 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 may 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.</p>	<p>EPA appreciates this feedback on the importance of connected end devices being responsive to variable pricing signals, and/or schedules as time of use and other dynamic pricing programs become more prevalent. While the current capabilities have been mainly considered as responses to an event / reliability-based signals, the specification does not define the signal -- only a minimum response from the appliances. It is therefore feasible that pricing information could also be leveraged by a clothes washer or upstream energy management system to recommend that a consumer delay the start of wash load for 4 hours until when electricity prices will be lower.</p>

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16	Connected	<p>EPA's proposal to disallow architectures that do not provide an open, non-proprietary means of achieving grid connectedness within the bounds of the customer's premises is applauded. Consumers are currently using a number of different communications technologies and protocols depending on available infrastructure and regulatory environments. Maintaining a focus on openness and neutrality will allow EPA to define the objectives of a connected architecture, while avoiding conflicts with the efforts of standards bodies. EPA is encouraged to keep this high-level principle in mind as it develops tight language to ensure open, non-proprietary communication.</p>	<p>Stakeholder engagement as connected criteria were developed revealed strong but divergent opinions on whether EPA should specify that a product must have on-premises open standards-based communications. In the final Version 7.0 specification EPA continues to recommend that products with connected functionality provide on-premises open standards connectivity, but also allows alternate approaches to also qualify. EPA plans to monitor the market, including interconnection of connected products by utilities, and may consider associated criteria revisions to support realization of opportunities from Smart Grid interconnection.</p>
17	Connected	<p>Customer-supplied broadband may be a viable way to achieve connectedness within a customer's home, but there are significant numbers of consumers who do not have broadband and/or wireless access. Some other customers 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, it is recommended that a connected appliance be equipped to communicate via all major communication pathways or requiring a standardized modular port. A modular approach that is based on an open standard is one option to address this diversity and provide consumers with flexibility.</p>	<p>The communications criteria in the final Version 7.0 specification are unaltered from the Final Draft. These criteria suport the use of open standards. EPA is aware there are currently a number of different communication protocols that can be used in connected devices. EPA does not require products be able to “communicate via all major communication pathways,” and as such, EPA recognizes that in the near term, protocol translation by in-home hubs, gateways, in the cloud, or by other means may be necessary until the market coalesces around a more limited set of communication protocols.</p>

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18	Connected	<p>If utilities and other third parties are required to interface with each manufacturer's cloud-based solution in the future, then there may be added cost and complexity, which may impact the cost effectiveness of demand response and energy efficiency programs. Also, 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, which may not be the customer's preference. Requiring that the appliance communicates 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 and would help ensure that the customer is afforded the ability to choose which offer to participate is based on their own needs and wants. While not the preference, alternative means for achieving two-way connectedness could be supported so long as the customer has the ultimate say and emerging pathways are not squelched.</p>	<p>The communications criteria in the final Version 7.0 specification are unaltered from the Final Draft. EPA is aware that a number of connected products in the marketplace currently use a cloud-based solution. By indicating a preference for products that enable on-premises open standards-based connectivity but allowing alternate communication architectures that offers greater flexibility in the short-term, EPA intends to let market forces drive the refinement of communication architectures for connected appliances.</p>
19	Connected	<p>The "Operational Status, User Settings &amp; Messages should not be a mandatory requirement for the allowance since these capabilities do not directly link into energy efficiency. The need for F1 and F2 depends on how demand response and remote management are implemented and may be covered in other sections. If the communication protocol does not need F1 and F2, then these should be regarded as additional services.</p>	<p>The final Version 7.0 specification retains the operational status, user settings &amp; messages criteria. Such functionality is expected to enable energy savings opportunities for consumers by ensuring they are notified of excessive energy consumption or a need for product maintenance, can empower and inform more precise energy management, and can enable utilities to better assess the magnitude of available dispatchable load.</p>
20	Connected	<p>The DOE Baseline Energy Test should be used as a comparison to determine the 50% average power draw as part of the TALR criteria.</p>	<p>The final Version 7.0 specification includes a placeholder for TALR criteria. EPA plans to further engage stakeholders to develop TALR criteria for clothes washers. Once finalized, this will be integrated into the specification, which will replace the TBD placeholder.</p>
21	Connected	<p>EPA's proposal to limit the number of DAL or TALR responses requested by utilities is supported. Consumers who are overwhelmed with requests may be less likely to participate in a demand response program and have reduced product satisfaction.</p>	<p>EPA appreciates this feedback and believes it is essential that consumer experience is carefully balanced with demand response opportunities.</p>

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22	Effective Date	EPA is urged to maintain the proposed effective date of March 7, 2015. ENERGY STAR clothes washer market share reached 60% in 2011 and the number of products on the ENERGY STAR certified product list increased over 20% from 2011 to 2012. If no action is taken until 2015, ENERGY STAR market share will have been over 50% for four years, which reduces the effectiveness of the ENERGY STAR brand. Therefore it is important to update the specification as soon as possible.	The growing market share for ENERGY STAR clothes washers was a primary driver for this specification revision. EPA has retained the March 7, 2015 effective date for the Version 7.0 specification that aligns with the ammended DOE standard for residential clothes washers. As part of the transition to the Version 7.0 specification, products will begin to be certified to the new specification later this year. The overall schedule is outlined in the cover memo accompanying the final Version 7.0 specification. EPA is also mindful of the linkage between washers and dryers in the marketplace and has proposed an effective date of January 1, 2015 for the first ENERGY STAR clothes dryer specification which could enable manufacturers to bring to market new washer and dryer pairs that meet both the latest ENERGY STAR clothes washer criteria and the new ENERGY STAR clothes dryer criteria.
23	Effective Date	Stakeholder proposes a coordinated effective date for the ENERGY STAR clothes washer and clothes dryer specifications.	