Water Heater Version 3.0 Spec - Stakeholder Comments Final Draft

Topic	Comment	EPA Comment Response
General		
General	We commend EPA for commencing the revision process for version 3.0 to assure ENERGY STAR's continued relevance and value in light of the 2015 changes to the federal standards.	Thank you for your comment.
Product Categories	BWC reaffirms its support with EPA's decision to align the product categories with how the products will be segmented (e.g. splitting gas and electric storage at 55 gallons) due to NAECA III, which comes into effect on April 16, 2015.	Thank you for your comment.
Terminology	Since the DOE Final Rule (pre-notice) on the uniform descriptor test method was released on June 27 in which the terminology "Light Duty Commercial" was changed to "Residential Duty Commercial" for EPACT-covered heaters, we suggest that EPA adopt the same terminology in the V3.0 specification.	EPA judges that the definition of "Light duty EPACT covered" water heaters (in our specification) and "Residential duty commercial" in the newly released DOE test method cover sufficiently different in scope such that we will need to take more time to understand aligning. Thus we will wrap that consideration into the modifications needed once DOE finalizes the crosswalk between metrics. We anticipate switching terminology during the next revision.
Gas Storage		
EF	In the case of gas storage models larger than 55 G, we agree with the modification to lower the minimum EF to .77. However, we reaffirm our comment that the criterion should vary by volume size. The concern that a simple formula may confuse consumers should not outweigh the technical fact that the test procedure produces lower EFs as the volume of the model increases. If EPA prefers not to specify the criterion in the form of an equation, a very simple table can be inserted in place of the single value specification.	EPA recognizes that it will be more difficult to design a larger volume unit that will meet the specification. We will re-examine this issue at a later revision, though we note that there are now units on the market that are more efficient than the "max tech" level in the latest DOE TSD. We have delayed further action on this issue for two reasons. First, the benefits of aligning the version 3.0 effective date outweighs the potential benefit of the careful, time consuming analysis that would be required. Second, we judge that the analysis will be more informative if carried out with data from the new test method. Thus, we will re-examine this issue in a subsequent revision.
	We strongly believe that the appropriate specification should be volume dependent, and should be based on the max-tech equation in the NAECA 3 Final Rule [EF=0.8012 – (0.00078*V)].	
Light-Duty EPACT		
Max Standby Loss	We reaffirm our recommendation that no change be made to the standby loss criterion for light duty EPAct covered gas water heaters. The modified maximum standby loss criterion, which has been increased compared to the first draft, is about 16% less than the current requirement. In view of the significant changes to efficiency ratings that will occur with the implementation of the recently finalized revised DOE water heater test procedures, we recommend that EPA defer any changes in the standby loss criterion for these models.	Because EPA is tightening the requirement for large gas storage water heaters, it would be unfair to leave the requirement for light duty EPACT units unchanged.

	We continue to strongly support a volume-compensated metric for the standby loss requirement for "Residential Duty EPACT" (Light Duty EPACT) covered gas heaters. We strongly believe the TE+SL "equivalence" to EF should be based on a sloped line, as discussed above, and not on 0.77 EF for all gallon capacities, and we encourage EPA to revisit their decision to not consider a volume dependent requirement at this time.	EPA recognizes that it will be more difficult to design a larger volume unit that will meet the specification. We will re-examine this issue at a later revision, as detailed in rows 8 and 9.
	For Light Duty EPAct covered gas water heaters, the EPA states that a manufacturer has the option of raising a water heater's thermal efficiency instead of lowering the standby loss. Volume correction should be taken into account also. When considering the typical size of the water heaters that fall into category, they are at a greater disadvantage given their surface area. Also, their tank construction to achieve the thermal efficiency required is a hindrance, especially when compared to other water heaters not in this category.	
Gas Instantaneous		
EF	Energy Factor requirements for gas instantaneous water heaters are set too high and are quickly forcing this advanced water heating product towards maximum technology even though they are significantly more efficient than the efficiency level which has been set for gas storage water heaters. EPA should consider an approach that would be consistent with the direction you have taken on gas storage water heaters > 55 gallons. The proposed ENERGY STAR specification for gas storage water heaters > 55 gallons acknowledges that this is an advanced water heating technology and has set the specification for energy factor at 0.77 which is 2 points higher than the DOE federal minimum efficiency. With support for a single efficiency level for all gas water heaters, ask EPA to at least consider setting the energy factor level for gas instantaneous water heaters at 0.84.	At the proposed levels, about half of instantaneous gas water heaters will be able to qualify. For high efficiency gas storage water heaters, there are no units currently on the market that meet the specification. The specification reflects this market reality.
Electric Water Heaters		
Scope	EPA did not revise the specification for electric storage water heaters under 55 gallons. It is not fuel or market neutral to require gas products to increase efficiency by less than 10% while requiring electric products to increase their efficiency by 110%. EEI urges EPA to revise the requirement for electric resistance storage water heaters to a more reasonable level, such as 0.96 EF, to create a program that is fuel and market neutral, will result in significant energy savings, and can be endorsed and promoted by electric utilities.	The current specification for electric water heaters under 55 gallons remains consistent with ENERGY STAR guiding principles and will not be revised.
Compressor Cut-Off Temperature/Noise	We support EPA's inclusion of a compressor cut-off temperature reporting requirement for heat pump water heaters but continue to urge EPA to do more to mitigate performance differences that could be experienced in cold climates.	EPA will continue to follow the effort to understand performance in cold climates with interest.
Warranty		

Gas Instantaneous	The first draft presented no proposed changes to the warranty requirements. We had commented that the warranty requirements for all models should be deleted from the Version 3.0 specification based on the fact that Energy Star specifications for other residential appliances and heating and cooling equipment do not include any requirement for a minimum warranty period. In view of our general position on the inclusion of warranty requirements, we must object to this late change. Manufacturers had no previous information that such a change was under consideration and this brief review period is not an adequate opportunity to discuss a change that is not inconsequential.	The final specification retains the warranty requirements for all water heaters, consistent with EPA's commitment to consumer value. The extent to which warranty requirements have become an issue implies that product lifetimes may be compromised by some designs of efficient products. This in itself supports the need for a warranty requirement. The additional price of such a requirement will be taken into account in understanding the consumer value of high efficiency products. The reduction of warranty requirements reflect consumers' advancing comfort with some high efficiency technologies that were previously required to have longer warranties.
	Some manufacturers requested that the EPA remove all warranty requirements from ENERGY STAR® product specifications.	
	In this attempt to align warranties you have eliminated all gas instantaneous water heaters from the program as the new warranty requirement is beyond anything currently offered on the market. I do not believe it was ENERGY STAR's intention to increase the warranty requirements for gas instantaneous water heaters and would ask that the parts warranty be returned to the current specification.	In recognition that EPA inadvertently changed the "parts" warranty for gas instantaneous water heaters, EPA has changed that back to 5 years.
	We do not support increasing instantaneous parts warranty from five years to six years. This yields a 20% increase in parts warranties, which will significantly impact warranty reserves and is not justified. ENERGY STAR® product is already sufficiently covered by the manufacturer's warranty. It is unclear why EPA is proposing to increase instantaneous heater parts warranty.	
	Although we do not think that warranty should be part of the water heater specification unless it is a part of all product specifications in ENERGY STAR, if it is to be included, moving to uniform warranty requirements (except for solar) is agreeable. A "level playing field" is always desirable.	Thank you for your comment.
Connected Criteria		
General	We agree with removing the Connected Criteria from the specification. We do agree that it would be appropriate to revisit the inclusion at some later time.	Thank you for your comment.