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April 30, 2014

Ms. Abigail Daken
ENERGY STAR® Water Heater Program Manager
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Avenue NW
MC 6202J
Washington, DC 20460

Subject: Residential Water Heater ENERGY STAR® Version 3.0 Draft 1 Commentary

Dear Ms. Daken,

These comments submitted by Rheem Manufacturing Company (Rheem) are in response to the April 2, 2014 industry stakeholder invitation to comment issued by the EPA regarding its Version 3.0 Draft 1 ENERGY STAR® Residential Water Heater specification proposal.

Rheem is headquartered in Atlanta, Georgia and operates multiple facilities for the manufacture or support of one of the most comprehensive lines in the U.S. of residential and commercial water heaters including storage, instantaneous and solar with nationwide distribution through retail, wholesale and utility channels. A significant segment of Rheem products will be impacted by this proposal.

Rheem supports the EPA's efforts in the development of a third generation (Version 3.0) ENERGY STAR® Water Heater Product Specification for Residential Water Heaters and participated in industry discussion and provided input to our trade association AHRI (Air-Conditioning, Heating & Refrigeration Institute). Rheem comments are as follows:

1. EPA requests feedback on the appropriateness of the energy efficiency levels proposed in V3.0 Draft 1.

Rheem does **not support** the EPA energy efficiency level revisions as proposed for the large capacity (>55 U.S. gallon) gas storage product category. The DOE through the NAECA III Final Rule, effective April 16, 2015, has established minimum efficiency requirements for larger capacity (>55 U.S. gallons) gas storage water heaters starting at 0.75EF (65 U.S. gallon). The EPA in this Draft 1 specification sets the ENERGY STAR® gas storage water heater high efficiency threshold at 0.80EF. No larger capacity product currently exists in the market at or even close to this efficiency level. It is well established that when using the current DOE efficiency test procedures, energy factors (EF's) generally decline as volume increases for models having the same design characteristics that influence efficiency. Rheem recommends that a stretch target condensing criteria remain in place and supports the values found in Table 1:

Rated Volume - V (U.S. gallons)	ENERGY STAR® V3.0 Draft 1 proposal EF = (0.8312 – 0.00078V)
65	0.78
75	0.77
100	0.75

Table 1

Rheem does **not support** the EPA energy efficiency level revisions as proposed for the standby loss requirement on the light duty EPACT covered gas storage product category. For the standby loss requirement on the light duty EPACT covered gas storage product category, Rheem believes that the proposal is too severe as the proposed criterion for light duty products would require energy consumption that is significantly reduced when compared to what has been proposed for gas storage models greater than 55 gallons. The proposed standby loss calculation would tighten the standby loss requirement by more than 34% as reflected in Table 2.

TE	Current SL *	Proposed SL **	% SL Change
90%	380	247	35%
92%	427	280	34%
94%	475	313	34%

* Current Energy Star Standby Loss Calculation: 2374 btu/hrx(TE – 0.74)

** Proposed Energy Star Standby Loss Calculation: 1647 btu/hrx(TE – 0.75)

Table 2

Rheem recommends that the EPA make no change to the standby loss criterion for light duty EPACT covered gas water heaters. The current criteria for these models will provide energy consumption equivalent to the revised EF levels that we have proposed (Table 1) for gas storage models > 55 U.S. gallons.

2. EPA requests feedback on the appropriateness and suitability of approach in adding optional “Connected Product Criteria” for current ENERGY STAR® electric storage water heaters (HPWH’s).

Rheem **does not** support the EPA proposal of adding optional Connected Product Criteria which include: Communications; Remote Management; Operational Status; and Demand Response functionality. Important work is ongoing with the industry and utilities to establish industry specifications on connected product criteria elements for residential water heating systems. This critical evaluation by industry and utility groups needs to be completed before connected product criteria elements are evaluated for inclusion in an EPA ENERGY STAR® Product Specification. Rheem participates and supports continuing work and effort in this regard at industry level through CEE (Consortium for Energy Efficiency)/AHRI committees and working groups.

Rheem asks the EPA to consider the outcome of this important initiative before specifying the inclusion of any connected product criteria elements in the ENERGY[®] STAR Product Specification.

3. EPA requests feedback on its proposal to remove the 2 gallon storage capacity limit from the definition of residential gas instantaneous water heaters.

Removing the capacity limit can create product hybrids that do not have a current test procedure and may not have a formal test procedure in place by the proposed ENERGY STAR[®] V3.0 compliance date of 4/16/15. Rheem asks the EPA to clarify its intent/definition or leave the definition as is until the new Uniform Energy Descriptor (UED) test procedure is finalized.

4. EPA requests feedback with respect to aligning the compliance dates of NAECA III and ENERGY STAR[®] V3.0.

Rheem supports the EPA proposal to align the compliance dates of NAECA III and ENERGY STAR[®] V3.0 based on currently released DOE test procedures.

OTHER ISSUES

Rheem respectfully requests that the EPA remove warranty from the V3.0 ENERGY STAR[®] product specification. ENERGY STAR[®] is the national symbol of energy efficiency, making it easy for consumers and businesses to identify top tier energy efficient products (not the highest warranty period products) within a given product category.

Thank you for the opportunity to comment. Rheem supports a progressive path towards the advancement of water heating technology and we remain committed to serving as an active participant in the ENERGY STAR[®] program.

Sincerely,

RHEEM MANUFACTURING COMPANY



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cc: Karen B. Meyers – Rheem (Corporate Director, Government Relations)