



Setting the Standards for
Home Energy Efficiency

Interpretation on Standard ANSI/RESNET/ICC 301-2014 Water Heater EF

Designation:	301-2014-07
Approved:	June 20, 2016 by SDC 300, Testing, Calculation and Labeling for Home Energy Ratings
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Applies to:	ANSI/RESNET/ICC Standard 301-2014 republished January 15, 2016, Table 4.2.2(1), Footnote (n)

Interpretation:

Table 4.2.2(1) Footnote (n) shall mean that when a Rated Home has no proposed water heater, the assumed 40-gallon storage-type water heaters in both the Rated and Energy Rating Reference Homes shall use the Energy Factor formulae for the appropriate fuel class found in Table 4.2.2(1).

Rationale:

A clarification is needed for conflicting hot water heater EF specifications within ANSI/RESNET/ICC Standard 301-2014.

As specified in Table 4.2.2(1), the Energy Rating Reference Home is required to have service water heating systems with EF values set as follows:

- Electric: $EF = 0.97 - (0.00132 * \text{store gal})$
- Fossil fuel: $EF = 0.67 - (0.0019 * \text{store gal})$

However, footnote (n) to the same table requires:

For a Rated Home without a proposed water heater, a 40-gallon storage-type water heater of the same fuel as the predominant fuel type used for the heating system(s) shall be assumed for both the Rated and Energy Rating Reference Homes. In both cases the Energy Factor of the water heater shall be as prescribed for water heaters by CFR 430.32(d), published in the Federal Register/Volume 66, No. 11, Wednesday, January 17, 2001 for water heaters manufactured after January 20, 2004.

The proposed interpretation will ensure that all fossil fuels use a consistent value for EF.