

RECPI-10-21

IECC®: R408.2.3, Table R408.2.3 (New)

Proponents: John Hensley, representing IECC RE HVACR & Water Heating Subcommittee (ieccrehvacr@iccsafe.org)

2021 International Energy Conservation Code

Revise as follows:

R408.2.3 Reduced energy use in service water-heating option. The hot water system shall meet one of the following efficiencies in Table R408.2.3-~~2~~.

- ~~1. Greater than or equal to 82 EF fossil fuel service water heating system.~~
- ~~2. Greater than or equal to 2.0 EF electric service water heating system.~~
- ~~3. Greater than or equal to 0.4 solar fraction solar water heating system.~~

Add new text as follows:

Table R408.2.3 Service water-heating efficiencies

<u>OPTION</u>	<u>WATER HEATER</u>	<u>SIZE</u>	<u>TYPE</u>	<u>EFFICIENCY</u>
1.	<u>Gas-fired storage water heaters</u>	<u>≤55 gallons</u>	<u>Medium Draw Pattern</u>	<u>UEF≥0.64</u>
			<u>High Draw Pattern</u>	<u>UEF≥0.68</u>
	<u>Uniform Energy Factor (UEF)</u>	<u>>55 gallons</u>	<u>Medium Draw Pattern</u>	<u>UEF≥0.78</u>
			<u>High Draw Pattern</u>	<u>UEF≥0.80</u>
2.	<u>Gas-fired instantaneous water-heater</u>	<u>=</u>	<u>=</u>	<u>UEF≥0.87</u>
3.	<u>Electric water heaters</u>	<u>=</u>	<u>Integrated HPWH</u>	<u>UEF≥3.30</u>
			<u>Integrated HPWH, 120 Volt/15 Amp Circuit</u>	<u>UEF≥2.20</u>
	<u>Uniform Energy Factor (UEF)</u>	<u>=</u>	<u>Split-system HPWH</u>	<u>UEF≥2.20</u>
4.	<u>Solar water heaters</u>	<u>=</u>	<u>Electric backup</u>	<u>SUEF≥3.00</u>
	<u>Solar uniform energy factor (SUEF)</u>	<u>=</u>	<u>Gas backup</u>	<u>SUEF≥1.80</u>

Reason: Original Proposal REPI-138-21 Proponent and AHRI have been working on this Proposal for months to gain consensus on a modification. After months of discussion both the Proponent and AHRI came back to the subcommittee with similar but still different modifications. After long discussion the subcommittee voted to Disapprove the modified version presented by the Proponent and Approve the version presented by AHRI. This created a committee Proposal listed and submitted separately. Proposal RECPI-10-21.

Cost Impact: The code change proposal will neither increase nor decrease the cost of construction.
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