



Washington State Building Code Council

Improving the built environment by promoting health, safety and welfare

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98504
(360) 407-9277 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

STATE BUILDING CODE INTERPRETATION NO. 18-09

CODE: 2015 Washington State Energy Code, Commercial

SECTIONS: Table R406.2, Energy Credits

QUESTION: There has been some confusion regarding the equivalent efficiency ratings between the old “Energy Factor” (EF) rating system and the new “Uniform Energy Factor” (UEF) ratings for water heating equipment. This is of particular concern when builders choose Options 5b or 5c from Table R406.2. These options specify minimum EF requirements, but all newly manufactured equipment is now rated using the UEF metric. What UEF ratings are considered to be equivalent to the EF ratings in Table R406.2, Options 5b and 5c?

ANSWER: **UEF values are permitted to be used in lieu of EF values for options 5b and 5c as shown in the underlined text below:**

5b	<p>EFFICIENT WATER HEATING 5b:</p> <p>Water heating system shall include one of the following:</p> <p>Gas, propane or oil water heater with a minimum EF of 0.74 <u>or UEF of 0.74.</u></p> <p>or</p> <p>Water heater heated by ground source heat pump meeting the requirements of Option 3c.</p> <p>or</p> <p>For R-2 occupancy, a central heat pump water heater with an EF greater than 2.0 <u>or a UEF greater than 2.0</u> that would supply DHW to all the units through a central water loop insulated with R-8 minimum pipe insulation.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency.</p>	1.0
5c	<p>EFFICIENT WATER HEATING 5c:</p> <p>Water heating system shall include one of the following:</p> <p>Gas, propane or oil water heater with a minimum EF of 0.91 <u>or a UEF of 0.88</u></p> <p>or</p> <p>Solar water heating supplementing a minimum standard water heater. Solar water heating will provide a rated minimum savings of 85 therms or 2000 kWh based on the Solar Rating and Certification Corporation (SRCC) Annual Performance of OG-300 Certified Solar Water Heating Systems.</p> <p>or</p> <p>Electric heat pump water heater with a minimum EF of 2.0 <u>or UEF of 2.0</u> and meeting the standards of NEEA's Northern Climate Specifications for Heat Pump Water Heaters.</p> <p>To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency and, for solar water heating systems, the calculation of the minimum energy savings.</p>	1.5

SUPERSEDES: None

REQUESTED BY: City of Seattle