Grid-Ready Water Heaters in Washington State

19.260 RCW and 194-24 WAC

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WA Appliance standards – Chapter 19.260 RCW

• Established in 2005
• Amended in 2006 and 2009
• Amended in 2019 by HB 1444
  • Used the Appliance Standards Awareness Project (ASAP) base bill plus the water heater standard
WA Appliance standards – WAC 194-24

- Delete old products
- Add products from 2019 legislation
- Update administrative and enforcement sections
  - Testing and certification provisions
  - Labeling and listing requirements
  - Penalty provision
  - Authority to change implementation date for water heater
- Rules for 17 products (including water heater) adopted January 2020
Electric storage water heater design requirement

- Applies to electric storage water heaters
  - Input rating 12 kW or less
  - 40-120 gallon rated storage volume
  - Supplies water at 180 degrees or less
- Phased implementation adopted in rule
  - Jan. 1, 2021 for heat pump water heaters
  - Jan. 1, 2022 for electric resistance water heaters
- Requires CTA-2045, or equivalent, communication port
Why did Washington choose to lead on this standard?

- Behavioral and technical data from pilot in PNW supported inclusion of design requirement into 2019 legislation (see: CEC docket 19-OIR-01)

- Technology supports electric grid of the future by enabling utility programs to manage water heating loads

- Supports flexible grid as we add more renewables toward our state 100% clean energy standard (Clean Energy Transformation Act)

- Commerce supports modular, open standards that are both good for consumers and allow for innovation
How did water heaters come into play?

• Support from legislature- Rep. Jeff Morris
• Data from Bonneville Power Administration, Portland General Electric and Northwest Energy Efficiency Alliance water heater pilot
• Technical support from diverse stakeholders: SMEs, utilities, and environmental advocates
Lessons learned for other states

• Broad technical support is key (and available!)
  • Northwest Energy Efficiency Alliance and others are supporting a national conversation on open standards for load management
• Get utility support
• Fears about cyber security and other consumer protection issues
• Consider adding flexibility through “or equivalent” language
• Consider in-house technical needs for implementation
Thank you!

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