

From: Heikkinen, Gary W. <Gary.Heikkinen@nwnatural.com>
Sent: Thursday, August 9, 2018 8:22 AM
Subject: EW101-2018, Service Water Heating

Members of the Washington State Energy Code TAG,

I won't be able to participate in Friday's meeting which will include consideration of this proposal, but wanted to get my comments and concerns on record. This proposal would increase the efficiency requirements for high input service water heating systems beyond the present requirement in C404.2.1.

First and foremost, I believe that the present efficiency levels in C404.2.1 are adequate and already 10% above the federal minimum efficiency of 80% Et for gas-fired water heating systems in this size range. Increasing the efficiency to 95% is too high for a minimum code requirement and pushes the limits of efficiency for this class of equipment.

Second, as written, it appears that individual .95 EF electric resistance water heaters would be allowed. This would actually increase energy cost, emissions and source energy use as compared to the existing requirement of 90% for gas-fired water heating systems in C404.2.1.

Third, we have not yet seen the revised cost estimates and do not know whether the proposed changes would be cost effective.

The efficiency levels and requirements in EW101 would be perfectly appropriate in a stretch code or as the "Reduced energy use in service water heating" option in C406.7, but are not appropriate as the mandatory minimum requirement in C404.2.1.

Thanks for your attention to this matter and please feel free to reach out with questions.

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