

**From:** [Anderson, Mary](#)  
**To:** [Eilert, Patrick L](#)  
**Subject:** Re: Commercial Water Heater Efficiency Standard Comment Letter DRAFT  
**Date:** Thursday, July 21, 2016 1:02:31 PM

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Yes.

Sent from my iPhone

On Jul 21, 2016, at 12:59 PM, Eilert, Patrick L <[PLE2@pge.com](mailto:PLE2@pge.com)> wrote:

I assume you are working on another letter. I agree that we don't want logos added until we approve.

Sent from my iPhone

Begin forwarded message:

**From:** Jon McHugh <[jon@mchughenergy.com](mailto:jon@mchughenergy.com)>  
**Date:** July 21, 2016 at 12:50:00 PM PDT  
**To:** "Mary Anderson ([M3AK@pge.com](mailto:M3AK@pge.com))" <[M3AK@pge.com](mailto:M3AK@pge.com)>, "Elliot, Ed ([ESE1@PGE.COM](mailto:ESE1@PGE.COM))" <[ESE1@PGE.COM](mailto:ESE1@PGE.COM)>, "Kundu, Bijit ([BKundu@energy-solution.com](mailto:BKundu@energy-solution.com))" <[BKundu@energy-solution.com](mailto:BKundu@energy-solution.com)>, "Pat Eilert ([PLE2@PGE.COM](mailto:PLE2@PGE.COM))" <[PLE2@PGE.COM](mailto:PLE2@PGE.COM)>, "Fernstrom, Gary ([gfernstrom@msn.com](mailto:gfernstrom@msn.com))" <[gfernstrom@msn.com](mailto:gfernstrom@msn.com)>, "Marshall Hunt ([mbh9@pge.com](mailto:mbh9@pge.com))" <[mbh9@pge.com](mailto:mbh9@pge.com)>  
**Subject:** FW: Commercial Water Heater Efficiency Standard Comment Letter DRAFT

This is an EXTERNAL EMAIL. Stop and think before clicking links or opening attachments.

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Hi gang,

I assume that PG&E would have heartburn signing this letter.

"If DOE receives additional shipment data, we again recommend that DOE recalculate the LCC analysis and confirm the selection of the TSL level. In the absence of more detailed shipment data, we recommend DOE clarifies the sensitivity of the analysis with respect to shipment data so that the public can better assess the impact of potentially inaccurate data."

What is the basis of the sensitivity analysis?? The manufacturers have the shipment data and if they choose not to share it, we should not encourage them by calling for derating the analysis based on a

hypothetical sensitivity analysis.

"The first cost of minimally compliant commercial gas-fired storage water heaters increases disproportionately compared to electric storage water heaters due to the large minimum thermal efficiency increase for the former and the standby loss only modification for the latter. The CA IOUs are concerned this may cause fuel switching because many customers use first cost and not LCC to make investment decisions. According to a CEC funded study about foodservice water heating in 2010, "The majority of water heaters installed (new construction and replacement) in foodservice facilities in California are standard-efficiency storage heaters with a

maximum 80% TE rating."<sup>[1]</sup> This shows that many commercial building owners are price conscious of first cost. According to Table 8.27 on page 8-14 of the TSD, the total installed cost of a minimally compliant gas-fired storage water heater today is \$667 greater than a minimally compliant electric storage water heater. However, that premium increases to \$1794 under the proposed TSL levels."

This example undercuts the argument being made. People are already spending more dollars up front to save on fuel energy over time. Using this as an example not to save even more energy is problematic for a codes & standards program comment letter.

#### ***4) Include asbestos abatement for a fraction of retrofit installations for all CWH equipment types***

*During the public workshop on 6/6/2016, Marc Esser of NegaWatt Consulting asked whether asbestos abatement was addressed in the LCC calculations and DOE said no. A fraction of all retrofit installations in old buildings will require asbestos abatement regardless of CWH equipment type but especially when flues or piping are replaced. This cost should be captured in the installation cost to increase the accuracy of the average nationwide total installed costs for all CWH equipment types.*

Asbestos has been effectively outlawed for boilers and pipe insulation since 1975 (over 40 years ago). Continuing to use a 40 year old flue is marginally affected by water heater type. In addition 68% of all buildings in the Western region of the US (where we are) were built after 1975 (2012 CBECS Table b9)

<https://www.eia.gov/consumption/commercial/data/2012/#b6-b10>

This is how one city deals with asbestos (transite) "*Since deteriorated transite flues can cause a life safety hazard, new gas appliances are not permitted to be vented into a transite flue. This also applies if a new condensing furnace is installed and the water heater vent is to be reconnected to the transite flue.*"

<http://www.cityofrichfield.org/home/showdocument?id=5966>. Both

condensing and non-condensing devices have to replace or by-pass the flue.

See this discussion. <http://structuretech1.com/2014/06/transite-asbestos-flues/> Their recommendation: *"This fix is to leave the transite asbestos material in place, block the openings at the top and bottom of the chimney, and replace the water heater with either an electric unit or a powervent unit that can vent out the side of the house."*

In general for residential these powervent units are condensing.

Costs are very application specific and often would apply to both sides of the equation. This does not increase accuracy of the calculation.

Finally this letter does not discuss whether the IOUs are supporting this proposal. This seems to be picking nits without a focus on saving energy. Do we think that we will receive attribution for energy savings from this letter? What is the purpose of this letter? Is this effort wise use of ratepayer's funds?

Can we not provide any useful data on the market issues brought up in statement 1? Surveys of distributors etc.?

As a general practice do you want your logo on letters such as these until after you have signed off?

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**From:** Marc Esser [<mailto:marc@negawattconsult.com>]  
**Sent:** Wednesday, July 20, 2016 4:31 PM  
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**Subject:** Commercial Water Heater Efficiency Standard Comment Letter  
DRAFT

All,

Please see attached for our draft letter regarding the commercial water heater efficiency standard.

If anyone would like to have a call to discuss, please let Daniela or myself know so we can set one up. Inline edits are just as welcome.

The submittal deadline is August 1st.

Thank you, and Best Regards,  
Marc

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Marc Esser  
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[1] Delagah, Amin and Fisher, Don. 2009. *Energy Efficiency Potential of Gas-Fired Commercial Water Heating Equipment in Foodservice Facilities*. California Energy Commission, PIER Energy-Technologies Program. CEC-500-2013-050.  
<http://www.energy.ca.gov/2013publications/CEC-500-2013-050/CEC-500-2013-050.pdf>

<CA IOUs - Com WH ECS NOPR - Comment Letter 2016-07-20b.docx>