From:	Hunt, Marshall
To:	Berman, Janice S; Anderson, Mary; Eilert, Patrick L; Davis, Vincent; Zelmar, Karen; Miller, Matthew
Subject:	RE: Urgent Update: DOE Condensing Furnace Standard
Date:	Wednesday, October 14, 2015 2:10:40 PM

Ok
I am working on it now

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From: Berman, Janice S
Sent: Wednesday, October 14, 2015 1:58 PM
To: Anderson, Mary; Eilert, Patrick L; Hunt, Marshall; Davis, Vincent; Zelmar, Karen; Miller, Matthew
Subject: Urgent Update: DOE Condensing Furnace Standard

Here's my attempt at a redraft of an e-mail to Nick S, based on the discussion I just had with Matt Miller and Marshall Hunt. Matt is checking in with Melissa Lavinson, as Nick spent some time recapping this issue with Melissa yesterday.
Experts – please read closely to make sure I haven't misspoken in an attempt to clarify some technical issues.
Marshall is going to provide drafts of the letters. We would like to get this to Nick ASAP.
--Jan

Nick,
As a follow-up to our discussion about DOE's condensing furnace standard in August, I wanted to let you know that we are planning to submit a letter to DOE today addressing a revised standard DOE issued on July 10, 2015, and supplemented on September 14, 2015. Because PG&E is still endeavoring to collaborate with various parties on discussion of the standard, we plan to meet today's deadline for comments with the **attached** letter indicating that we are still engaged in the dialogue and will submit our formal comments within the next few weeks. We hope that DOE will agree to accept our late submittal.

We have also **attached** a draft letter which expresses our current viewpoint, and is what we would anticipate filing in a few weeks unless the ongoing dialogue changes our position. We understand that you have been heavily involved in this issue through AGA, and we are looking for your perspective and input before proceeding with this letter.

Background
The Department of Energy released an initial furnace standard July 10, 2015 that would

require a 92% efficient furnace, which is an increase from the current standard of 80% efficient furnace (effective 2015). A noncondensing furnace has AFUE values up to 80 and a condensing furnace will achieve AFUE (Annual Fuel Utilization Efficiency) values above 90. This achieved by adding a second heat exchanger. It was noted in the analysis that in some older homes in the northeast and in Los Angeles customers may pay more for the increased standard that what it would save due to installation difficulties.

NRDC, AGA, ACEEE, ASAP, and others worked on a developing a compromise 2-tier, capacity-based standard, but did not complete negotiations before comment letters were due in July. AGA and others encouraged DOE to revise their analysis to include a capacity based, 2 tier standard. Such a standard would allow noncondensing furnaces up to a certain capacity (Btu input), requiring condensing furnaces for larger capacity units. The theory is that when a large capacity furnace is installed the annual energy use will be higher. Savings are a percentage of the usage so higher usage will yield more savings which can offset incremental costs thereby increasing lifecycle cost-effectiveness. DOE released additional information on September 14, 2015, which included analysis of the impact of a compromise that was brokered by the advocates and industry that considers a 2-tier standard with capacity cutoffs of 45, 55 and 65 kBtuH. PG&E's Codes and Standards program is supportive of this compromise urges a cutoff at the lower end of the range. We believe it is cost effective and in the best interest of our customers.

The draft comment letter (attached) supports the lower end of DOE's compromise position and advocates a 50 kBtuH cutoff capacity. This cutoff level allows noncondensing 80 AFUE furnaces with adequate heating capacity and air conditioning airflow to serve the comfort conditioning needs of our customers with furnaces under 50 kBtuH. Furnaces over this size would be required to meet the 92 AFUE requirement.

<u>Positions of Parties</u>
The other organizations participating in this rulemaking are taking the following stances:

- ACEEE, NRDC and ASAP are taking the same position as PG&E.
- The CEC has emailed us to let us know that they will be urging DOE not to proceed with a capacity based standard. Since the majority of furnaces in California are under 65 kBtuH the capacity standards will not provide significant savings for California.
- SCE and SDG&E are staying neutral to avoid the controversy.
- Our understanding is that SCG, AHRI and AGA are likely to take a stance advocating for the 65 kBtuH cutoff requirement.

Over the past months, PG&E conducted two Statewide Codes & Standards meetings and exchanged communications with SoCalGas and the other IOUs. As occurred previously, PG&E and SoCalGas were unable to reach common ground and will be submitting separate letters.

Please do not hesitate to contact me, as well as our experts Marshall Hunt and Pat Eilert. We desire to keep our position in the rulemaking in alignment with your role at AGA.
Thanks,
--Jan Berman

From: Anderson, Mary
Sent: Wednesday, October 14, 2015 8:46 AM
To: Berman, Janice S; Eilert, Patrick L; Hunt, Marshall; Davis, Vincent; Zelmar, Karen
Subject: RE: Update: DOE Condensing Furnace Standard

Jan,
We have filled in additional details where you requested. Please let us know if you need anything else. We appreciate your support on this rulemaking.
Mary

From: Berman, Janice S
Sent: Wednesday, October 14, 2015 6:14 AM
To: Anderson, Mary; Eilert, Patrick L; Hunt, Marshall; Davis, Vincent; Zelmar, Karen
Subject: Update: DOE Condensing Furnace Standard

Thanks for the draft letter Mary. I'm still looking for a little more background on what it means to "raise the cutoff to 50kBtuH." I think you may need to spell out what the cutoff was in the original ruling, and the positions parties took, so I can understand what this compromise means. I also don't understand the point about the 80 AFUE furnace, as I don't have enough technical background. Can you add a bit more explanation to these points.

Also, I'd like to send Nick the draft letter.
Thanks,
--Jan

Nick,
As a follow-up to our discussion about DOE's condensing furnace standard in August, I wanted to let you know that we will be submitting a letter to DOE today addressing a revised standard DOE issued on July 10, 2015. A draft of our letter is attached. The Department of Energy released an initial furnace standard that would require a 92% efficient furnace, which is an increase from the current standard of 80% efficient furnace (effective 2015). A noncondensing furnace has AFUE values up to 80 and a condensing furnace will achieve AFUE (Annual Fuel Utilization Efficiency) values above 90. This achieved by adding a second heat exchanger. It was noted in the analysis that in some older homes in the northeast and in Los Angeles customers may pay more for the increased standard that what it would save due to installation difficulties.

NRDC, AGA, ACEEE, ASAP, and others worked on the capacity based standard but could not complete negotiations before comment letter were due in July. AGA and others went to the

Congress to force DOE to revise their analysis to include a capacity based, 2 tier standard. Up to a certain capacity (Btu input) noncondensing furnaces are allowed. The theory is that when a large capacity furnace is installed the annual energy use will be higher. Savings are a percentage of the usage so higher usage will yield more savings which can offset incremental costs thereby increasing LCC. The Department of Energy has released additional information and has requested comments on the furnace proceeding on September 14, 2015. As part of the newly released information DOE has issued analysis of the impact of a compromise that was brokered by the advocates and industry that considers the capacity cutoffs of 45, 55 and 65 kBtuH. PG&E's C&S program is supportive of this compromise urges a cutoff at the lower end of the range. We believe it is cost effective and in the best interest of our customers.

In an effort to respond to the proceeding PG&E conducted two Statewide Codes & Standards meetings and exchanged communications with SoCalGas and the other IOUs. As occurred previously, PG&E and SoCalGas were unable to reach common ground and will be submitting separate letters.

PG&E's comment letter will support the lower end of DOE's compromise position and advocates a 50 kBtuH cutoff capacity. This cutoff level allows noncondensing 80 AFUE furnaces with adequate heating capacity and air conditioning airflow to serve the comfort conditioning needs of our customers with furnaces under 50 kBtuH. Furnaces over this size will be required to meet the 92 AFUE requirement.

The other organizations participating in this rulemaking are taking the following stances:

- ACEEE, NRDC and ASAP are taking the same position as PG&E on this rulemaking.
- The CEC has emailed us to let us know that they will be urging DOE not to proceed with a capacity based standard. Since the majority of furnaces in California are under 65 kBtuH the capacity standards will not provide significant savings for California.
- SCE and SDG&E are staying neutral to avoid the controversy.
- Our understanding is that SCG, AHRI and AGA are the major detractors for this rulemaking. They are likely to take a stance advocating for the 65 kBtuH cutoff requirement.

Please do not hesitate to contact me, as well as our experts Marshall Hunt and Pat Eilert, if you want more information.
--Jan Berman

From: Berman, Janice S
Sent: Tuesday, August 18, 2015 5:25 PM
To: Stavropoulos, Nickolas
Cc: Zelmar, Karen; Eilert, Patrick L; Hunt, Marshall
Subject: DOE Condensing Furnace Standard

Nick,
This is a follow-up to our phone call of July 29 in which we discussed DOE's proposed condensing furnace standard. You asked for additional information on the replacement costs assumed in DOE's analysis, and our view on whether these cost assumptions are reasonable. The attached 4-page

document provides a brief discussion of the cost assumptions, and our review which was supplemented by consulting firm TRC. I've also included the original 1-pager we used during the July 29 call.

Please feel free to follow up with Marshall Hunt and Pat Eilert, our experts on this subject, as well as Karen Zelmar. I'm in route to Indonesia, and will be cut off from wifi in another day or 2 once I board the dive boat and we enter more remote locations. Back in September,

Thanks,
--Jan