

**From:** [Hunt, Marshall](#)  
**To:** ["Farahmand, Farhad"](#)  
**Subject:** RE: First draft of possible joint furnace comments  
**Date:** Monday, July 06, 2015 12:42:02 PM  
**Attachments:** [image001.png](#)  
[image002.jpg](#)

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Please send to the people who will be on the call

Marshall B. Hunt  
Professional Mechanical Engineer  
Codes & Standards  
Pacific Gas & Electric Company  
415-260-7624  
mbh9@pge.com

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**From:** Farahmand, Farhad [mailto:FFarahmand@trcsolutions.com]  
**Sent:** Monday, July 06, 2015 11:54 AM  
**To:** Hunt, Marshall  
**Subject:** RE: First draft of possible joint furnace comments

Hi Marshall,

Here are the slides you requested, please let me know if this is what you were looking for.

I've also provided the updated memo.

Best,

Farhad  
(916) 844-1033

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**From:** Farahmand, Farhad  
**Sent:** Monday, July 06, 2015 11:30 AM  
**To:** 'Hunt, Marshall'  
**Subject:** RE: First draft of possible joint furnace comments

Hi Marshall,

### **Net Cost**

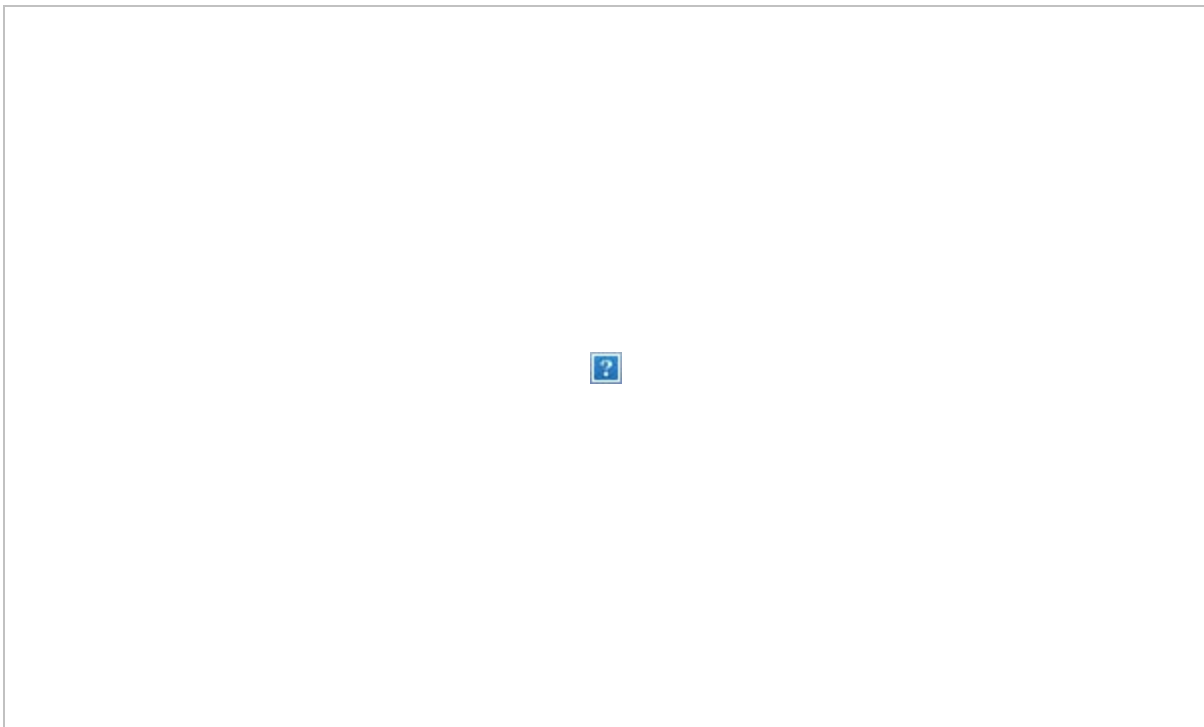
I found in the spreadsheet where the 20% Net Cost value comes from, but I tracked it down to a value (ie, a macro is counting the number of trials with a Net Cost and pasting it in). I can track down the trials and characterize them for you, if you like. I looked at the [simulation outputs for a 2,000 trial simulation for CA-only buildings](#), and these are the results when run according to DOE's original settings:

92% AFUE - 39% have net cost  
95% AFUE - 44 % have net cost

### **Input Capacity Market Share**

I also looked into the market share of furnace capacity. Using DOE's figures 3.2.8 and 7B.2.13:  
Approximately 32% of nationwide products available are <70,000 Btu/h  
Approximately 23% of nationwide products in DOE's sample are <70,000 Btu/h

Again, I looked at a 2,000 sample for CA only, and it showed that the DOE methodology leads estimates that 63% of the residential furnaces in CA are below 65 kBtu/hr in capacity:



Let me know if you have any questions, and talk to you soon.

Farhad

**Farhad Farahmand, PE**  
**Project Manager, Building Science**



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-----Original Message-----

From: Hunt, Marshall [<mailto:MBH9@pge.com>]

Sent: Monday, July 06, 2015 8:58 AM

To: Farahmand, Farhad  
Subject: FW: First draft of possible joint furnace comments

For our discussion

Marshall B. Hunt  
Professional Mechanical Engineer  
Codes & Standards  
Pacific Gas & Electric Company  
415-260-7624  
[mbh9@pge.com](mailto:mbh9@pge.com)

-----Original Message-----

From: Roy, Robin [<mailto:rroy@nrdc.org>]  
Sent: Monday, July 06, 2015 8:54 AM  
To: Longstreth, Ben; Brad Penney; Charlie Harak; Goldstein, David; David J. Lis; Noll, Elizabeth; Harvey Sachs; Jeff Harris; Joanna Mauer; Kennedy, Kit; Kristen@Energy Driskell; Marshall Hunt; Hunt, Marshall; Mel Hall-Crawford; Mike Murza; Patrick@Energy Saxton; Steve Nadel; Suzanne Watson; Timothy Ballo; Chris Granda; Andrew DeLaski; Marianne DiMascio  
Subject: First draft of possible joint furnace comments

Hi all,

As discussed, here's a DRAFT JOINT furnace comment letter for your consideration.

(NRDC would also submit supplementary detailed comments along the lines of our draft circulated last week, with some modifications for consistency with this joint letter.)

Your thoughts, and any sign-ons on either draft are most welcome.

Robin

From: [rroy@nrdc.org](mailto:rroy@nrdc.org)<<mailto:rroy@nrdc.org>>  
When: 8:00 AM - 8:30 AM 6Jul15  
Subject: Furnace negotiations update  
Location: (212) 727-4600 4193092#

Hi all,

There's been some positive development on furnace negotiations. (This development isn't reflected in NRDC's draft comments that you'll receive today (Thursday) morning, as it's still a work in progress, but if successful we'd amend our final comments accordingly.)

Cheers,  
Robin

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