From: Tartaglia, Stuart
To: Zhang, Yanda; Jon McHugh; Eilert, Patrick L; Hunt, Marshall; Anderson, Mary
Subject: RE: mbh9 edits NG Strategic
Date: Friday, December 04, 2015 8:22:24 AM

Regarding Slide 13 and your reference to "Shrinkage"

Shrinkage is made up of two components. Lost and Unaccounted For (LUAF) gas and Gas Department Use (GDU). The GDU is the gas used by utilities to compress gas for injection into storage, or for pressurizing the transmission system. LUAF is the gas that is vented, leaked, or just not billed due to metering inaccuracy or lost meters.

So, I would be careful about assuming shrinkage is all about gas that is lost into the atmosphere.

Stu

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From: Zhang, Yanda [mailto:YDZhang@trcsolutions.com]
Sent: Wednesday, November 25, 2015 12:30 PM
To: Jon McHugh; Eilert, Patrick L; Hunt, Marshall; Anderson, Mary; Tartaglia, Stuart
Subject: RE: mbh9 edits NG Strategic

Jon,

The savings in slide 4 table was statewide savings. I should have used PG&E savings, since all other charts reflect PG&E savings. I've updated the table in the attached deck, which also include response to your questions. I think this update address all inconsistency issues you raised.

PG&E get 36.5% of the statewide gas savings. This fraction reflects PG&E's share of statewide gas sales for all sectors, not just residential. I do not have a residential market share estimate.

Yanda Zhang
Direct: 916.844.1103

From: Jon McHugh [mailto:jon@mchughenergy.com]
Sent: Wednesday, November 25, 2015 11:48 AM
To: Zhang, Yanda <YDZhang@trcsolutions.com>; Eilert, Patrick L <PLE2@pge.com>; Hunt, Marshall <MBH9@pge.com>; Anderson, Mary <M3AK@pge.com>; Tartaglia, Stuart <SET2@pge.com>
Subject: RE: mbh9 edits NG Strategic

Yanda,

I may be slow but…

… it seems like your tables and figures are not internally consistent.

They may be using different time spans, or talking about integrated savings over a time period or the 10th year savings in Million therms per year etc.

Slide 4 graph and table don't match. If there is a reason this should be on the slide.
Slide 5 and 4 numbers don't match
Also slide 5 is not clear what you are talking about in for the $97 Million in savings - is this integrated? See yellow triangle in graph between lines, is this what you mean?
Slide 7 and slide 4 numbers don't match.

See comments and notes

Also if you give me the PG&E fraction of statewide residential sales of natural gas I will convert the statewide graphs to PG&E only graphs on slides 12 and 18.

I hope that top management with an interest in gas share this with their counterparts down south. This is pretty compelling

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From: Zhang, Yanda [mailto:YDZhang@trcsolutions.com]
Sent: Wednesday, November 25, 2015 9:09 AM
To: Eilert, Patrick L <PLE2@pge.com>; Hunt, Marshall <MBH9@pge.com>; Anderson, Mary <M3AK@pge.com>; Jon McHugh <jon@mchughenergy.com>; Tartaglia, Stuart <SET2@pge.com>
Subject: RE: mbh9 edits NG Strategic

Attached please find the slide deck with updated impact analysis per Pat's request below. Here are some key findings:

- Of the three proposals (slide #4), the revised DOE proposal (92AFUE for >75 kBtuh) has the lowest savings
- The NRDC proposal has slightly higher savings that the original DOE proposal (92AFUE for all), because the former requires 95AFUE in Tier II and has an early effective date for Tier I. Small furnaces (< 55 kBtuh) are not covered, but their market share is relatively small (9.4%) and UES for small furnaces are smaller than large ones.
- The updated savings are ~ 50% higher than previous estimates. The updated savings are based on DOE model results for CA building samples, instead of average values for southern states. I also excluded the NOMAD rate included the DOE baseline assumption. So savings

calculation is consistent with CPUC's method in calculating potential energy savings. The average UES for 92AFUE is 36 therm/year.

- I compared the impact of 92AFUE standard to having all NC homes to use heat pump heating to show that the latter has much larger impact.

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From: Eilert, Patrick L [mailto:PLE2@pge.com]
Sent: Friday, November 20, 2015 10:08 AM
To: Hunt, Marshall <MBH9@pge.com>; Anderson, Mary <M3AK@pge.com>; 'Jon McHugh' <jon@mchughenergy.com>; Zhang, Yanda <YDZhang@trcsolutions.com>; Tartaglia, Stuart <SET2@pge.com>
Subject: RE: mbh9 edits NG Strategic

My comments-
S-4 / seems like this should be a chart that shows impacts over time, from implementation to 2050.
- whatever we do, let's create a version with furnaces only
- let's model the DOE proposal
- let's model NRDC's unconscionable proposal
2019 92AFUE 75kbtuh
2025 95AFUE 55kbtuh
- we need to show a timeline to communicate that NRDC's proposal means that customers with small furnaces (low income in particular) will be stuck with high gas bills until 2031

From: Hunt, Marshall
Sent: Thursday, November 19, 2015 2:30 PM
To: Eilert, Patrick L; Anderson, Mary; 'Jon McHugh'; 'Zhang, Yanda D.' (YDZhang@trcsolutions.com); Tartaglia, Stuart
Subject: mbh9 edits NG Strategic

Here are my edits.
Email me with instructions if more is needed. I will be working tomorrow AM before flying home.

Marshall B. Hunt
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We respect your privacy. Please review our privacy policy for more information.
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