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Subject: report on last week"s furnace mtg

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CONFIDENTIAL: Here's a report on last week's meeting with industry stakeholders and us. Key next step is to prepare our written comments for the DOE docket, due July 10. I know some of you have already commenced work on yours. I'm traveling tomorrow so have asked Marianne to get a poll around to find a call time. Please be on the lookout for that and respond as soon as you can. Thx.

## Report on 6/11 furnace meeting

At the meeting last week, AGA proposed the following: 80% AFUE standard below 5000 HDD; 92% above. Furnaces at or below 80kbtu/h input would need to meet an 80% standard, regardless of region.

AHRI seconded the proposal for the 5000 HDD line, with 92% in the North and 80% in the south. AHRI also wants to allow 80% furnaces below a certain input capacity anywhere, but they did not have a position on the input capacity break point (previously, they also had said 80 kbtu/h)

On the other elements of our previous proposal, AHRI said:

- #1. they are pulling the furnace fan efficiency proposal off the table (we estimated small savings potential, given the 2019 fan rule).
- #2. they cannot support 81% AFUE for non-condensing furnaces.
- #3. they did not mention the AC standards (separately, they've requested a formal reg neg on the next round of AC standards, which is likely to be approved tomorrow).
- #4. they remain open to a provision related to learning thermostats, but have a lot of questions about how it would be done.
- #5. they did not respond on the building code, saying they viewed it as a secondary issue to be worked out after the main issues (Note: FWIW when the codes option came up, Craig Drumheller said that NAHB while not favoring it would not object if it were part of the package.)
- #6. In response to our suggestion that we get more info on savings from modulating furnaces, several manufacturers in private said the energy savings are very small the advantage of such units is comfort from more even heating.

The manufacturers expressed a strong preference for an approach that is simple.

AGA justified their position, in part, with an argument that they don't believe the DOE analysis has withstood the scrutiny of AGA's consultant (GTI) and that therefore the DOE proposal and any national standard in the condensing range is not cost-effective. They'll release that GTI critique of the DOE analysis as part of their written comments to the docket in early July. We need to be prepared to review, understand and critique it.

We responded to say that the AGA proposal was considerably short of what makes sense for consumers and energy savings. We said that there is some combination of north/south border, kbtu/h cut off for non-condensing products and condensing AFUE level (92 v 95), and ways to get additional savings from 80% furnaces that will allow for some non-condensing furnaces where they make economic sense and still deliver the large savings potential for this rule, but the AGA proposal does not come close to capturing it. All of these issues need to be further considered.

Steve shared his draft language on performance based approach for T-stats. This element achieves some of the savings lost by allowing some 80% furnaces.

The gas and furnace industries are going to review the performance based concept for T-stats.

We agreed to form a small technical working group on data issues that can help inform the kbtu/h cutoff, N-S line and 92 vs 95 AFUE issues, Harvey is our designee to that group and will convene that group.

AHRI asked if there was a quad target we had in mind for this rule. We said our goal is maximum cost effective savings, but would think about if we can reduce it to a quad number.

All sides said they'd like to continue working to see if a consensus can be reached. We also recognized that everyone would be focusing on their written comments to the docket in the near term now.

My sense is that our team needs to shift our full attention to preparing our written comments, which are due on July 10. To that end, please fill out the doodle poll Marianne will send around so we coordinate our written comments.

- Andrew

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