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Furnace Proposal (May 22, 2015, revised proposal)

1. 92%[[1]](#footnote-1) AFUE standard to take effect in 2019, concurrent with the furnace fan standard in states with 3000 or more HDD.
2. For states with less than 3000 HDD, standard to take effect in 2019 would incorporate an efficiency of 81% AFUE, plus additional features (“81 plus”) which achieve roughly the same energy savings as a 92% AFUE furnace would:
   1. 81% AFUE.
   2. More efficient fan – AHRI to develop a specific proposal for this.
   3. Installation of a “learning thermostat”. Details to be worked out but need to be features so that installation is required and resale of this thermostat is a violation of federal law. Could use regional standard RegNeg procedures to restrict sales of these furnaces to installers who are found by DOE to be repeat violators. “Learning thermostat” will need to be defined but it’s like a Nest or Lyric. DOE to conduct a RegNeg to work out implementation details. DOE can revise the definition of “learning thermostat” without going back to Congress to address any loopholes that emerge. DOE to conduct a study two years after effective date of standard on energy savings achieved from different types of learning thermostats and whether definition needs to be revised.
3. CA has less than 3000 HDD on average, but may prefer the 92% standard. Need to check.
4. Explicitly allow installation of furnaces meeting the “81 Plus” standard in states with more than 3000 HDD if to replace an existing furnace (i.e. does not apply to new construction) and furnace capacity 65,000 Btu/hour input rating or less. (Industry stakeholders counter-proposed an 80,000 Btu/hr break point. Both groups are looking into what break point seems most sensible to address hard-to-vent homes occupied by lower income families).
5. Establish as of Jan. 1, 2019 a central AC standard of SEER 14 in the north, to coincide with the furnace standard. This gains some energy savings in the north. AHRI asked if we can drop the EER standard in the southwest. We said we would check with Californians on this.
6. Next set of standards for residential furnaces, central AC and HP to take effect Jan. 1, 2023. This is the date Environment Canada has set for use of new refrigerants and is the best guess of when EPA will also require new refrigerants. Allow DOE to move this 2023 date up or back up to two years to align the effective date of new standards with the date new refrigerants are required. We should all discuss when the 2023 standard needs to be finalized, but since the 2023 (or thereabouts) date is based on new refrigerants, the requirement for a 5-year lead time will be waived for this next round of standards – coordinating with the new refrigerants is primary. Work together to update test methods in advance of the proposed rule, with scope of update TBD.
7. Allow states to set a 92% or 95% AFUE in their building codes if they want. (We previously proposed that states above 3000 HDD could adopt 95 AFUE and those below 3000 HD could adopt 92. On reflection, it seems that states should be able to adopt either level. This approach avoids a situation where states can adopt any level, but leaves states free to select what level they determine makes sense for their building code among these two.)

1. Some advocates, including NRDC, do not support 92%, noting that 95% is superior for the following critical metrics:

   - higher average and total consumer cost savings;

   - lower fraction of households negatively impacted by a condensing standard;

   - greater emissions reductions;

   - higher energy savings.   
   However, they will consider any overall package that emerges, and any further data in support of 92% AFUE, to see if they can support it. [↑](#footnote-ref-1)