

June 11, 2019

U.S. EPA ENERGY STAR Program

Delivered via email: energystarhomes@energystar.gov

RE: Comments from Owens Corning on additional changes to Version 2 draft of the ENERGY STAR Manufactured Homes program

These comments are submitted by Owens Corning Insulation in response to the request for additional comments by ENERGY STAR dated May 28, 2019.

Owens Corning is a leader in fiberglass and related materials, systems and solutions. Our products are largely a result of our applied Building Science and Sustainability efforts which drive our innovation and our global operations. Owens Corning product specifications and operational activities are specifically undertaken with a measurable awareness towards natural resources stewardship as an integral part of our self-imposed sustainability journey. Thus, it is with long-term resource sustainability, durability, occupant comfort and energy efficiency, that we provide the following perspectives.

We support what we believe is the EPA's goal of maintaining the ENERGY STAR program as an above-code benchmark. Owens Corning also recognizes that the application of ENERGY STAR in the market is subject to different market channels and thus different starting baselines. That being stated, we hold firm to our belief that voluntary, above-code programs should continue to push markets beyond what is customary and ordinary.

We understand and respect that previous comments supporting the building envelope as priority and higher R-values has been considered and rejected. However, we would propose that our comments below are much more targeted in comparison to base HUD code (Federal Register Part 3280) as opposed to uniquely separate national and local codes from previous proposals, and therefore our comparisons should carry additional weight.

Owens Corning respectfully offers the following initial **Areas of Concern** for consideration:

General:

- Above code programs are voluntary and therefore should not consider a wider variety of metrics – energy efficiency + durability, comfort, carbon reduction, etc
- Above-code programs should not set a precedent wherein compliance can be demonstrated by default code compliance practices
- Above-code programs should reinforce “better-than” building envelopes, mechanicals and other systems specifications
- Above-code programs should aim to seed markets for higher performance building practices vs. the status quo – there should be a marked differentiator
- Assemblies with longer-term life-cycles should be given priority over equipment or other measures with more limited lifespans as longer life-cycle assemblies provide for greater energy and durability performance – which is especially true for envelope assemblies that are not typically subject to occupant intervention for at least a 30-year period, which also means we have one chance at getting the most impact out of these assemblies during initial construction

- High performance mechanical systems with typical 15-year life-cycles are not guaranteed to be replaced with like equipment and therefore should not be given equal priority as an energy efficiency measure compared to the building envelope

Electric Heat Pump Path:

- Stated equipment efficiencies are no better than what is currently the Federally mandated minimums
- Stated R-values for Walls and Floors are no better than what is currently required for base code compliance, based on sample industry heat loss calculations
- Questioning why there is a difference in Uo values for single-section vs. multi-section and would argue a whole-house Uo is more appropriate
- Existing Uo values do not appear to correlate with stated R-values (R-values should be higher to reflect the stated Uo values?) – are comparison calculations available for review?
- Stated Glazing Uo and SHGC is worse than what is currently required for base code compliance, based on sample industry heat loss calculations

High Efficiency Gas Furnace Path:

- Stated R-values for Walls and Floors in Z1 and Z2, are no better than what is currently required for base code compliance, based on sample industry heat loss calculations
- Questioning why there is a difference in Uo values for single-section vs. multi-section and would argue a whole-house Uo is more appropriate
- Existing Uo values do not appear to correlate with stated R-values (R-values should be higher to reflect the stated Uo values?) – are comparison calculations available for review?
- Stated Glazing Uo and SHGC is worse than what is currently required for base code compliance, based on sample industry heat loss calculations

Regards,



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