



Memo

Date: January 24, 2023

To: NEEM-participating Home Builders

From: Brady Peeks, Northwest Energy Works (NEW)

Re: ENERGY STAR Ver. 3 and New Zero Energy-Ready Homes (ZERH)

The years of wrangling over a new energy efficiency standard for manufactured homes appears finally to be over. The Department of Energy (DOE) released its rule last May, which sets the new energy efficiency standard for multi-section homes almost at the same performance level of today's ENERGY STAR specifications (NEEM version 1.1). Single-section homes will be subject to less-stringent requirements. Industry efforts to avoid the DOE standard through legislation and/or lawsuit haven't brought results, so it looks like beginning May 31, 2023 all new homes must be built to meet the new standard.

Since ENERGY STAR certification is targeted at homes that exceed minimum requirements by at least ten percent, the Environmental Protection Agency (EPA) released in December a new Version 3 of its ENERGY STAR for manufactured homes program requirements. The current Version 2 phases out May 31st, and moving to Version 3 will bring changes to the NEEM program. We are working out the details of exactly how all the changes will be implemented, but here are the highlights.

- Single-section homes will not see much change for what it takes to earn the ENERGY STAR, since the new DOE standard didn't change requirements for these homes by much. As a result, the current ENERGY STAR (NEEM ver. 1.1) requirements should qualify as ENERGY STAR, though a modest window improvement (to better reject solar heat) will be necessary for homes shipped to California, Arizona or New Mexico. These requirements will be included in a new NEEM ver. 1.2.
- Multi-section homes with gas heat should be able to be built with the same insulation levels as current ENERGY STAR homes (NEEM ver. 1.1), but the furnace must have a 95 AFUE rating. Homes shipping south also must have windows with a lower SHGC rating. These requirements will be included in a new NEEM ver. 1.2.
- Electrically-heated multi-section homes face the largest changes. The way to earn the ENERGY STAR with electric heat is to add a heat pump to the home. The NEEM program is in the middle of upgrading its database application to add the capability of tracking heat pump installations on homes. The system will allow people in the field to scan a label using their mobile device to confirm that a heat pump has been installed. Meanwhile, NEEM staff continues to negotiate with the EPA and DOE teams to look for a way to fully certify homes when they leave the factory, but we have not reached agreement on this.

The DOE also has released a new pilot version of its Zero Energy-Ready Homes (ZERH) program for manufactured homes. This program is designed to recognize ENERGY STAR homes that also include additional measures, like adding conduit to make homes "solar ready," designing plumbing systems that minimize the amount of hot water that sits in piping, and incorporating energy-efficient ventilation systems. The NEEM program is ready to work with plants that want to get set up to certify homes to ZERH. We are also planning to develop retailer training to explain this new program.

This is a LOT of change, and factories can expect to see more details from NEEM very soon, but we can say now that using gas furnaces rated at 95 AFUE will allow homes to meet the new Version 3 ENERGY STAR requirements today. For plants that ship homes south to California, Arizona or New Mexico, ensuring that windows have SHGC ratings no higher than 0.25 will also be important.

The NEEM Program provides third party home certification that qualifies homes for ENERGY STAR® branding. Administered by:

Northwest Energy Works, Inc.

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