ENERGY STAR® NEW HOMES

Technical Bulletin:
ENERGY STAR Certified Smart Thermostats

The average American household spends nearly half of their annual energy bill on heating and cooling. ENERGY STAR certified smart thermostats automatically adjust a home's temperature settings for optimal performance. This Technical Bulletin will offer tips and considerations for incorporating smart thermostats into ENERGY STAR Certified Homes and promoting their benefits to home buyers and renters.

Courtesy: U.S. Department of Energy

ENERGY STAR Smart Thermostat Certification

ENERGY STAR introduced the Smart Thermostat label in 2017. Unlike a standard programmable thermostat, ENERGY STAR certified smart thermostats are WiFi connected, automatically learn homeowners' preferences, and have been independently certified to deliver energy savings based on actual field data. In fact, the average home saves 8% on heating and cooling costs, or $50 per year.

Currently Certified Products

Many recognized smart thermostat brands offer ENERGY STAR certified products, and the list is growing. Visit the ENERGY STAR Product Finder for the latest information.

Energy Saving Features

ENERGY STAR certified smart thermostats are convenient, easy to use, and among the most attractive on the market today. They make a great selling feature in new homes. While system designs vary, common features include:

- Control of a home's heating and cooling remotely through a smartphone.

- Geofencing, which triggers the preferred temperature setting when the homeowner is on their way home.
- Learning the homeowners' temperature preferences and establishing a schedule that automatically adjusts to energy-saving temperatures when they are asleep or away.
- Notifications when there is a problem with the HVAC system.
- Software updates incorporating the latest algorithms and energy-saving features.
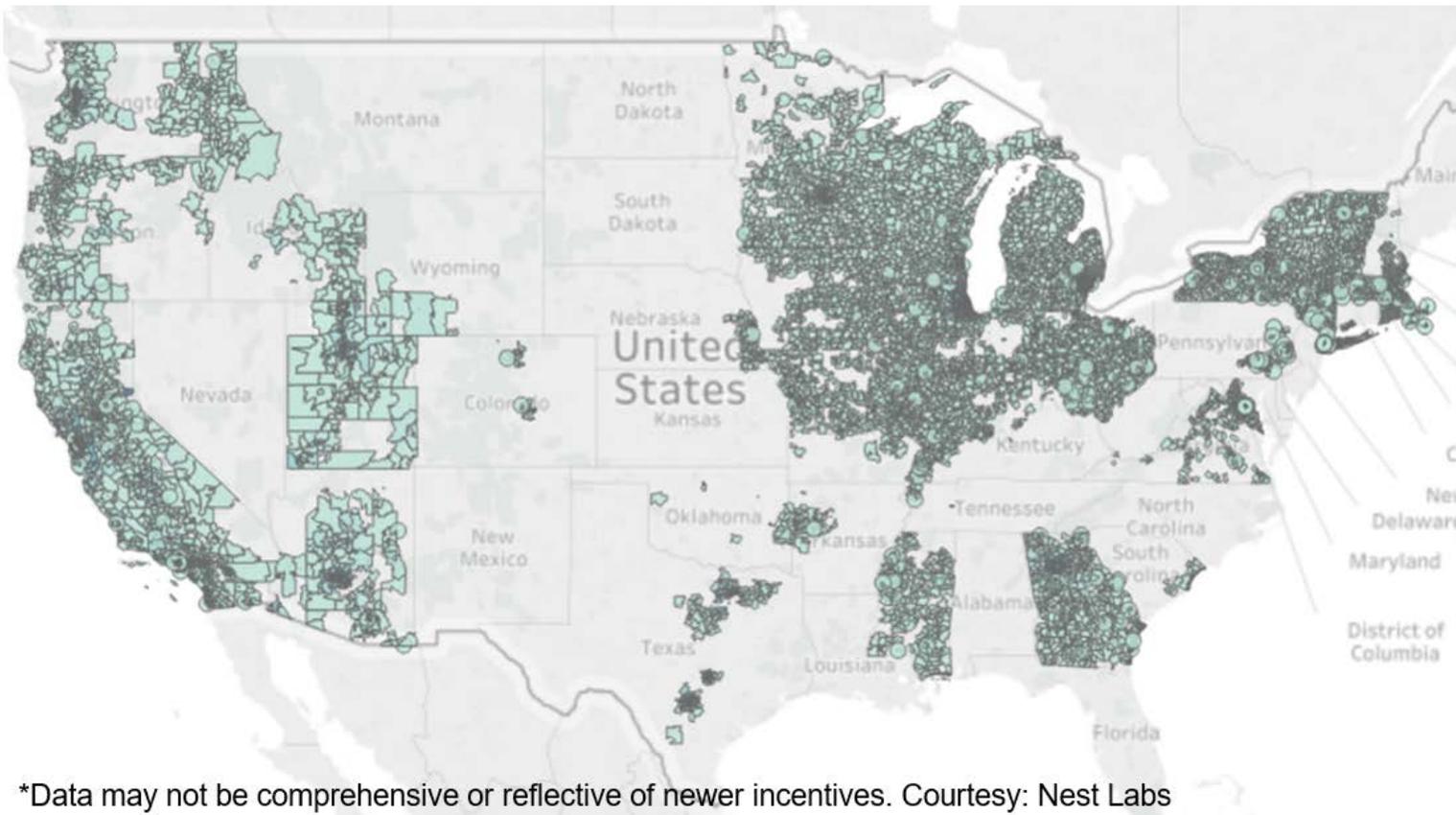
Smart Thermostats and the HERS Index

Currently, any programmable thermostat will contribute toward a reduced HERS Index, but efforts are under way to capture additional HERS credit for smart thermostats compared to more basic programmable models. The ENERGY STAR program will share this update with partners once it has taken effect.

Rebates and Incentives

Various organizations offer product rebates and other incentives for smart thermostats. According to Nest Labs' data on incentive programs, smart thermostat rebates are available to more than 55%* of the U.S. population as of 12/31/2017. Use ENERGY STAR's Rebate Finder to find product rebates and other special offers specific to ENERGY STAR products.

*Data may not be comprehensive or reflective of newer incentives. Courtesy: Nest Labs

Installation Best Practices

ENERGY STAR certified smart thermostats are a great choice for any single-speed heating and cooling system. They are no harder to install than any other thermostat, though many do recommend a 'C' wire for new installations. With variable-speed equipment, the

thermostat recommended by the equipment manufacturer should be used.

Note that homeowners will need to connect their smart thermostats to WiFi to realize the full benefits of the product.

Learn More

- [ENERGY STAR certified smart thermostat main product page](#)
- [Product Finder for brand and purchasing guidance](#)
- [Smart thermostat key product criteria](#)
- [Utility incentives for ENERGY STAR certified smart thermostats](#)
- [ENERGY STAR Rebate Finder](#)
- Email [energystarhomes@energystar.gov](#) to request a copy of the webinar recording, '*Sales & Savings: Smart Thermostats for ENERGY STAR Certified Homes.*'
- [Archived ENERGY STAR Certified Homes Technical Bulletins](#)
- [DOE Building America Solution Center Guide to Thermostat Controls](#)

ENERGY STAR® is the simple choice for energy efficiency. For 25 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov.