



# Become an Industry Leader: The Simple Lift to Zero Energy Ready Home

Many leading ENERGY STAR Certified Home builders are looking to the next step for superior home performance and market differentiation. Welcome to DOE Zero Energy Ready Home (ZERH). ZERH can take the homeowner experience to a new level of affordability, comfort, health, and durability. Here are 6 simple steps to make an easy move from ENERGY STAR Certified Home to ZERH.

Step	What	Why
<b>1. Higher Efficiency</b>	<b>Lower HERS Score:</b> ZERHs feature greater efficiency with HERS Scores typically in the 50s. Builders have many choices to reach these levels with enclosure measures and efficient components. In fact, the average HERS Score in 2019 from over 200,000 HERS ratings was 59, suggesting many builders already have the HERS score they need. The score required for a specific home is calculated by the HERS software model for that home.	<b>Build Future Ready Homes:</b> Achieving a low HERS score puts homes well on their way to meeting and exceeding forthcoming codes. A product that should last for 100 years or longer shouldn't be obsolete in just a few. Proudly offer homes that are designed to stand the test of time.
<b>2. More Rigorous Enclosure</b>	<b>Latest Codes &amp; ENERGY STAR Windows:</b> ZERHs feature solid building envelopes to manage loads and provide comfort. Whereas ENERGY STAR Certified Home references the 2009 or 2012 IECC envelope provisions, ZERH references the 2015 IECC. This includes more rigorous requirements for insulation levels for foundations, walls, floors, and ceilings. Additionally, ZERH targets windows based on ENERGY STAR specs that are more efficient and block more unwanted sunlight. Most importantly, these are cost-effective specs that are attainable with many different materials and approaches.	<b>You've Got One Chance to Get the Enclosure Right:</b> It's cost prohibitive to upgrade the enclosure once installed and so vital to ensuring a great homeowner experience. Meeting and exceeding the latest adopted national codes is a great way to start.
<b>3. Optimized Comfort Distribution</b>	<b>HVAC Ducts &amp; Equipment in an Optimized Location:</b> In ZERH homes ducts and equipment are located to avoid exposure to severe temperatures and the resulting energy performance penalties. A number of duct location design options are available for every climate and foundation type.	<b>Take Comfort to a New Level:</b> We can do so much better than installing fragile duct systems and equipment in horribly inefficient unconditioned attics, basements, and crawl spaces.

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<p><b>4.</b> <b>Complete Health Protection Package</b></p>	<p><b>Indoor airPLUS (IAP) Certification:</b> IAP is a set of leading expert best practices that can help minimize exposure to airborne pollutants and contaminants. IAP builds upon ENERGY STAR Certified Home provisions with added measures for moisture control, radon mitigation, pest control, low-emission products (e.g., pressed wood, cabinets, paints, and carpet), combustion safety, fresh air ventilation, high-capture filtration, and dehumidification. Most high-performance builders already incorporate many of these provisions.</p>	<p><b>Health is the New ‘Must Have’:</b> Now more than ever consumers are health conscious about their home environments. Health is no longer extra credit and a huge differentiator.</p>
<p><b>5.</b> <b>Efficient Components</b></p>	<p><b>ENERGY STAR Appliances &amp; Efficient Hot Water:</b> ZERH requires ENERGY STAR qualified dishwashers, refrigerators, and clothes washers where provided by the builder. They are widely available and cost-effective. ZERH also requires ENERGY STAR qualified bath exhaust fans and ceiling fans, along with ENERGY STAR qualified fixtures or bulbs for at least 80% of the lighting. Builders have two options for meeting ZERH hot water efficiency requirements: a) an efficient hot water distribution system, or b) a high efficiency water heater along with WaterSense showerheads and bathroom sink faucets.</p>	<p><b>In High-Performance Homes, Components Account for More than 50% of Energy:</b> An advanced enclosure reduces the home’s heating and cooling loads so effectively, that optimizing utility savings relies on the use of energy efficient appliances.</p>
<p><b>6.</b> <b>Solar Ready</b></p>	<p><b>Low-cost PV-ready Features:</b> ZERHs include features that streamline and reduce the cost of adding a solar electric system in the future where not included during construction. This includes running conduit from the attic to future inverter location, providing the roof’s load ratings to the homeowner to avoid significant expense securing engineering calculations, and extra circuit breakers. There are several exemptions that apply if a home is not suited to PV or located in a region with low annual sunlight.</p>	<p><b>Zero with No Cost Penalty or Disruption:</b> As solar and battery costs decrease and the desire for home resilience increases, it’s incredibly affordable to make homes ready for future solar where not included during construction.</p>

Please visit the DOE Zero Energy Ready Home website to access the program requirements and recorded training webinars on these topics:

[www.buildings.energy.gov/zero](http://www.buildings.energy.gov/zero)