Technical Bulletin: What Is HERO Code

Residential New Construction Program



BUILDING A **SMARTER** ENERGY FUTURESM

What does "HERO" stand for? **H**igh-**E**fficiency **R**esidential **O**ption (HERO).

The Duke Energy RNC Program promotes the construction of highly efficient, better quality new homes. Homes submitted into the Program must perform above code minimum requirements. This technical bulletin will help define HERO Code requirements and incentive structures.

There are two pathways within the Whole-home Program incentives:

- 1. **HERO-only:** The home complies with HERO code performance standards while making use of the code's "visual infiltration inspection" allowance (no blower door test).
- 2. **HERO+HERS:** The home meets all HERO code requirements and incentives are based on a comparison of the actual home's energy model to the NCECC code baseline (includes blower door test).

| Duke Energy Progress - Whole House Incentive | | | | | | | |
|--|---|--|--|--|--|--|--|
| Туре | HERO-only | HERO+HERS | | | | | |
| Program Requirements | Annual energy usage is less than HERO reference home with blower door set to 4.00 ACH50 or 0.24 CFM50/SFSA 90% or greater efficient lighting | Annual energy usage is less than HERO reference home Blower door ≤ 4.00 ACH50 or 0.24 CFM50/SFSA 90% or greater efficient lighting | | | | | |
| Incentive | \$750/home | \$0.90 / kWh savings Maximum Incentive: \$9,000 | | | | | |

| Duke Energy Carolinas - Whole House Incentive | | | | | |
|---|---|--|--------------|--|--|
| Type | HERO-only | HERO+HERS | | | |
| Program Requirements | Annual energy usage is less than HERO reference home with blower door set to 4.00 ACH50 or 0.24 CFM50/SFSA 90% or greater efficient lighting | Annual energy usage is less than HERO reference home Blower door ≤ 4.00 ACH50 or 0.24 CFM50/SFSA 90% or greater efficient lighting | | | |
| Incentive | \$650/home | Electric heating savings | \$0.40 / kWh | | |
| | | Non-heating electric savings | \$0.75 / kWh | | |
| | | Natural gas heating | \$0.75 / kWh | | |
| | | Maximum Incentive: \$6000 | | | |

Technical Bulletin: What Is HERO Code

Residential New Construction Program



Proposed home 1

NC HERO Code = HERO Reference home = Compliance reference home

Proposed home 2

Rebate 1

No rebate because home does not achieve HERO compliance

SC Rebate Reference Home = SC State Code (with amendments) = Rebate reference Home

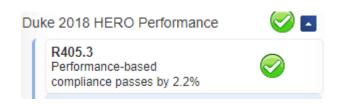
Homes must achieve HERO compliance to be eligible for rebates.

The requirements for a HERO+HERS home are explained in further detail below.

Annual energy usage is less than the HERO Performance reference home – Check the quick results pane in Ekotrope to see if the home saves more than that of the reference home.



A failing home is indicated by a red triangle with an exclaimation mark and will also show the projected dollar amount of the energy bill is over that of the reference home.



A passing home is indicated by a green circle with a checkmark.

Lighting – The RNC Program requires 90% or greater high-efficacy lighting fixtures. When counting lights, raters should count per fixture, not per bulb. For example, a chandelier with 6 bulbs counts as 1 fixture towards the lighting count. A list of lights to include and exclude are below.

Technical Bulletin: What Is HERO Code

Residential New Construction Program



BUILDING A SMARTER ENERGY FUTURESM

| Included Lighting | | | | | |
|-------------------|--|--|--|--|--|
| Kitchens | Entrances | | | | |
| Dining Rooms | Bedrooms | | | | |
| Living Rooms | Garages | | | | |
| Family Rooms/dens | Utility Rooms | | | | |
| Bathrooms | Home Offices | | | | |
| Hallways | Any exterior fixture on a building or a pole | | | | |
| Stairways | Closets without operable doors | | | | |

| Excluded Lighting | | | |
|-----------------------------|--|--|--|
| Closets with operable doors | | | |
| Plug-in Lamps | | | |
| Unfinished basements | | | |
| Landscape lighting | | | |
| Attics | | | |
| Crawlspaces | | | |

Th 90% high-efficacy requirement is for lighting percentage for the entire house including all interior, exterior, and garage lighting. An example of how to calculate a home's lighting percentage is below. The lighting percentage used to determine if the home can receive an incentive is highlighted in yellow.

| Location | Incandescent | CFL | LED | Total | Percent High |
|----------|--------------|-----|-----|-------|--------------|
| | | | | | Efficacy |
| Interior | 4 | 1 | 30 | 35 | 89% |
| Exterior | 0 | 0 | 10 | 10 | 100% |
| Garage | 0 | 2 | 0 | 2 | 100% |
| Total | 4 | 3 | 40 | 47 | 91% |

You can find additional details and program requirements at http://www.duke-energyrncinfo.com/.