

Technical Bulletin: Final Inspection Guide

Residential New Construction Program



BUILDING A SMARTER ENERGY FUTURESM

It is important for home energy raters to test homes in the RNC Program correctly to ensure accurate rebates. This technical bulletin will outline the testing procedures raters should follow as well as the incentive requirements for Program homes.

There are two ways to participate in the RNC Program, through qualifying for whole-home incentives or equipment-only incentives. Under whole-home incentives, homes tested for the Program can receive a HERO-only or HERO+HERS incentive. The table below outlines the details of the requirements and incentive amounts, but the primary difference between HERO-only and HERO+HERS is the blower door requirement.

Whole House Incentive		
Type	HERO-only	HERO+HERS
Requirements	<ul style="list-style-type: none">Annual energy usage is less than HERO reference home with blower door set to 4.00 ACH5090% or greater efficient lighting	<ul style="list-style-type: none">Annual energy usage is less than HERO reference homeBlower door \leq 4.00 ACH50 or 0.24 CFM50/SFSA90% or greater efficient lighting
Incentive	\$750/home	\$0.90 / kWh savings

Building envelope testing

- Ensure all exterior doors and windows are closed with all interior doors remaining open.
- The location of the manometer can affect the testing results. Place the manometer off the floor and above the blower door fan.
- Include conditioned crawlspace, attic spaces, and insulated basements in the infiltration volume if the following criteria are met:
 - There is a door connecting the area to conditioned space.
 - The HVAC system was designed using the ACCA manuals specified by RESNET.
 - There are ducts serving the area.
- HVAC, ventilations, and other fans
 - Non-motorized dampers for fresh air ventilation must remain in “as is” condition.
 - Motorized dampers for fresh air ventilation must remain in the closed positions.
 - HVAC and other ventilation systems must remain off.
 - All Supply and duct registers should remain unsealed. An example of an improper blower door set up is to the right.



Blower door tests should not be performed while ducts are sealed.

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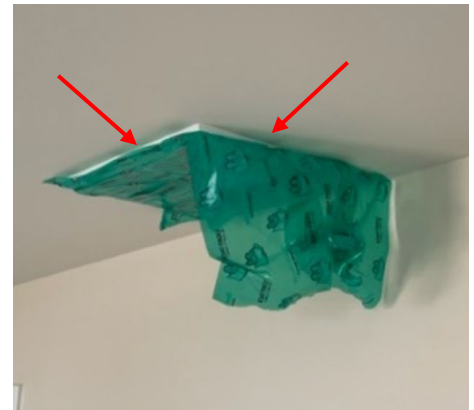
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Duct Leakage Testing

- The duct air leakage testing equipment should be attached to the largest return that is closest to the air handler.
- The filter should be removed, and the air handler power should be turned off.
- An exterior door or window should be opened during total leakage testing.
- All registers and returns must remain sealed with either tape or vent caps at both the face and the perimeter, meaning tape is in contact with drywall.
 - Where supplies are in a carpeted floor, plugs can be used if the duct boot is fully sealed to the subfloor.
- Place the reference hose to the supply closest to the air handler.
- Start with the smallest ring and adjust accordingly for the best accuracy.
- Ensure the manometer results are recorded within the following pressure ranges:
 - Total leakage: 25 +/- 3 Pa
 - Leakage to Outside: 0 +/- 0.5 Pa



An example of a return that isn't sealed to drywall

Lighting

Lights can account for hundreds of dollars of savings and are easy for a rater to overlook. It important to count any high efficacy lighting in the interior, exterior, and garage of the house, excluding certain locations of light fixtures. The tables below highlight the locations to include and exclude from the lighting count.

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

In addition, RESNET qualifies two tiers of lighting, Tier I and Tier II. **Tier I are all fixtures with florescent lighting. Tier II is any fixture with LED lights with the following exceptions:**

- Exterior lights with photocells.
- Interior lights with motion sensors.