

ENERGY STAR[®] Multifamily New Construction HVAC Grading for HVAC Contractors



Overview

An exciting new option for meeting ENERGY STAR HVAC design and functional testing requirements is here. This option, called “Track A - HVAC Grading by Rater,” leverages ANSI / RESNET / ACCA / ICC Standard 310 for grading the installation of HVAC systems. Standard 310 integrates an HVAC design review and four sequential field tasks into a standard energy rating. Properly installed HVAC systems will be rewarded with better ERI scores, which can help meet the ENERGY STAR ERI Target for projects using the ERI certification path.



The Five Key Sequential Tasks in Standard 310

Task 1	Task 2	Task 3	Task 4	Task 5
Design Review	Total Duct Leakage	Blower Fan Airflow	Blower Fan Watt Draw	Refrigerant Charge

This new option can be used, but is not required for ENERGY STAR certification. Partners can continue to follow the original design and functional testing requirements if desired, which have been rebranded “Track B - HVAC Testing by Functional Testing Agent.” However, for projects using the new option, stepping up from an ERI rating to ENERGY STAR certification will be easier than ever.

HVAC grading makes it easier to certify ENERGY STAR MFNC buildings:

- Integrates most ENERGY STAR HVAC requirements into an ERI
- For systems that are eligible for grading, a credentialed HVAC contractor or a Functional Testing Agent is not required
- Rewards proper installation with ERI points and helps meet the 45L tax credit

FAQs

ENERGY STAR Timeline: Can I use it now? When do I have to use it?

The “Track A - HVAC Grading by Rater” option can be used now. If you’re also providing design services, then note that new HVAC design report templates that will streamline certification are being programmed into HVAC design software programs.

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Partners who want to continue using the original requirements, rebranded “Track B - HVAC Testing by Functional Testing Agent,” may do so. While Track A offers many benefits, partners will not be forced to use it.

What does this mean for me?

As an HVAC contractor, you are still responsible for properly testing or installing the HVAC system per the design report, and you should continue to assess the quality of installation during startup. If you are an HVAC contractor who is also providing design services, then you’ll be completing a slightly different HVAC design report, along with an ENERGY STAR supplement. However, it will look very familiar to designers who have previously filled out HVAC design reports for the ENERGY STAR MFNC program.

The key difference is that Raters will be verifying key elements of the design and installation quality for the purpose of the rating. This is very similar to tight ducts – HVAC contractors must seal the ducts to achieve low leakage, while Raters are responsible for verifying their tightness. Additionally, with the Rater verifying both design and installation quality, the HVAC contractor does not need to complete the Functional Testing Checklist.

In addition, because Std. 310 is applicable to any project getting an ERI rating, and not just to those being ENERGY STAR certified, the market will greatly expand for properly-installed HVAC systems.

What HVAC systems are eligible for HVAC grading?

ANSI / RESNET / ACCA / ICC Standard 310 is applicable to unitary HVAC Systems including air conditioners and heat pumps up to 65 kBtuh and furnaces up to 125 kBtuh in dwelling units and sleeping units that have their own HVAC system separate from other units. For the MFNC program, HVAC grading may also be completed on these systems where they serve a single common space. Systems that do not meet the sizing limits or systems that serve multiple dwelling units or common spaces are not eligible for HVAC grading.

Can HVAC Grading be used for the Prescriptive and ASHRAE Paths?

Yes! You can use this HVAC Grading if the Multifamily Review Organization allows that option; however, you will not get any extra modeling credit for the ASHRAE model.

How much will it cost?

The costs should decrease somewhat relative to Track B - HVAC Testing by Functional Testing Agent. While it will take about the same amount of time to properly install the HVAC system, if a project is using Track A - HVAC Grading by Rater, contractors are not required to fill out the ENERGY STAR HVAC Functional Testing Checklist. And if you’re providing design services, it should take approximately the same amount of time to complete the new HVAC design report and ENERGY STAR supplement.

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Do HVAC designers or HVAC contractors have to do anything under this new path?

Yes! The HVAC system still must be properly designed, properly installed by the HVAC contractor in order to meet ENERGY STAR requirements and achieve the lower ERI score.

Do I need a Functional Testing Agent for the building? Does any part of the Functional Testing Checklist need to be completed?

If all systems in the building are eligible for HVAC Grading, then a Functional Testing Agent is not required. Raters must still complete Section 5 of the FT Checklist, which is the functional testing of the indoor unit, but this verification can be completed in concert with the HVAC grading tests.

Should I still be credentialed?

If the builder or developer are using Track A - HVAC Grading by Rater, it's recommended that you maintain your credential, or they should be prepared to have a Functional Testing Agent (such as the project's MEP) verify those systems, at least until Track A has been used long enough to demonstrate that the HVAC systems are consistently well-designed and properly installed. Only then is it recommended that you discuss with your builders or developers whether there's value in maintaining the credential. As a reminder, if a builder or developer is not using HVAC Grading and is using Track B - HVAC Testing by Functional Testing Agent, then the Functional Testing Agent or HVAC Contractor must meet all the qualifications, same as before.

What do I need to do next?

Continue to install and/or test HVAC systems properly just as you've been doing. Also, continue to complete the ENERGY STAR HVAC Functional Testing Checklist until your builders begin using Track A - HVAC Grading by Rater. If you're providing design services, be on the lookout for the new Std. 310 HVAC Design Report and ENERGY STAR supplements, which will be added to residential design software programs.

Learn more by reading Std. 310 at www.resnet.us/resnet-ansi/. To see how ENERGY STAR integrates the HVAC grading option into its program, visit: www.energystar.gov/newhomesrequirements and review the national program requirements under the Multifamily New Construction tab.