Technical Bulletin:  
Track A - HVAC Grading Now Available for Use!  
October 5, 2021

Track A - HVAC Grading is a collection of requirements built upon ANSI / RESNET / ACCA / ICC Standard 310 that can be used to satisfy many of the HVAC design and commissioning components of the ENERGY STAR Single-Family New Homes program.

And now, with the release of updates for Ekotrope, EnergyGauge USA, and REM/Rate, Track A - HVAC Grading, can now be used.

While this new track is available for use, partners are free to continue using Track B - HVAC Credential. Track B is a collection of requirements built upon the use of a credentialed HVAC contractor. While the name “Track B - HVAC Credential” is new, this is the familiar set of requirements that partners have been using to date.

Key Benefits of Track A - HVAC Grading

HVAC grading makes it easier to certify ENERGY STAR single-family new homes:

- Integrates most ENERGY STAR HVAC requirements into a standard energy rating
- Does not require the use of a credentialed HVAC contractor
- Does not require the contractor to complete the HVAC Commissioning Checklist
- Rewards proper installation with ERI points and helps meet the 45L tax credit

How to Use Track A - HVAC Grading

1. **Complete the mandatory training and assessment required by your Home Certification Organization (HCO).**

   For example, EPA’s currently-recognized HCO, RESNET, requires that Raters and RFIs complete online training and an evaluation by a field candidate assessor prior to using ANSI / RESNET / ACCA / ICC Standard 310. In the future, other HCOs may have different requirements.

2. **Follow ANSI / RESNET / ACCA / ICC Standard 310 over the course of the energy rating.**

   One required component is the collection of a design report. RESNET has created an ANSI / RESNET / ACCA / ICC Standard 310 HVAC Design Report template, available [here](#) under “Calculators And Tools”. This has been integrated into Wrightsoft and EnergyGauge USA, and can be completed with the press of a button. Efforts are underway to integrate this into RHVAC, as well.
It's recommended that Raters wait to use the standard until this integration is complete for the program(s) being used by the designers they work with. However, in the interim, Raters can have designers complete this report manually.

RESNET has also created an ANSI / RESNET / ACCA / ICC Standard 310 Data Tool, also available here under “Calculators And Tools,” to assist with the design review and field tasks required by the standard.

In addition to following ANSI / RESNET / ACCA / ICC Standard 310 over the course of the energy rating, there are three additional tasks required for ENERGY STAR certification while using Track A - HVAC Grading:

3. Collect the ENERGY STAR HVAC Design Supplement.

While most of the design documentation requirements are satisfied by the new ANSI / RESNET / ACCA / ICC Standard 310 HVAC Design Report, ENERGY STAR requires several additional design elements related to the ventilation system and HVAC sizing. These are reported on the design supplement.
This template has been created and will be integrated into HVAC design programs, as well. Wrightsoft is targeting Q4 2021, EnergyGauge USA is targeting Q2 2022, and RHVAC is assessing their timeline. It’s recommended that Raters wait to use the standard until this integration is complete for the program(s) being used by the designers they work with. However, in the interim, Raters can have designers complete this supplement manually or have them complete the current ENERGY STAR National HVAC Design Report, which contains the essential information they’ll need.


Most design review requirements for ENERGY STAR will be satisfied by the ANSI / RESNET / ACCA / ICC Standard 310 design review. The two additional requirements for ENERGY STAR are shown in the highlighted fields below. They simply require the Rater to verify that all required documentation was collected and completed and that the cooling sizing limits have been met.

5. Complete Sections 5a.1 through 5a.3 of the ENERGY STAR National Rater Field Checklist.

While any airflow, watt draw, and refrigerant grade is acceptable for an energy rating, these items specify minimum grades that must be achieved for ENERGY STAR certification.
Overview of Track A vs. Track B within ENERGY STAR

Below is a summary of how Track A and Track B compare in the Single-Family New Homes program. To reiterate, Track B is what partners have been using to date.

<table>
<thead>
<tr>
<th>Single-Family New Homes</th>
<th>Track A: HVAC Grading</th>
<th>Track B: HVAC Credential</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC designer completes..</td>
<td>.Std. 310 Design Report + ENERGY STAR Supplement</td>
<td>.ENERGY STAR HVAC Design Report</td>
</tr>
<tr>
<td>Rater reviews design report per..</td>
<td>.Std. 310 Data Tool + ENERGY STAR Design Review Checklist</td>
<td>.ENERGY STAR Design Review Checklist</td>
</tr>
<tr>
<td>Rater verifies..</td>
<td>[n/a]</td>
<td>.HVAC contractor is credentialed</td>
</tr>
<tr>
<td>HVAC contractor installs..</td>
<td>.equipment</td>
<td>.equipment and completes ES HVAC Commissioning Checklist</td>
</tr>
<tr>
<td>Rater verifies..</td>
<td>.Grade I total duct leakage, Grade I / II blower fan airflow, Grade I / II blower fan watt draw, Grade I refrigerant charge when the non-invasive method is able to be used</td>
<td>.total duct leakage limits, static pressure, permitted to collect ES HVAC Commissioning Checklist</td>
</tr>
</tbody>
</table>

Additional Resources

Use ENERGY STAR's HVAC grading factsheets: Educate your stakeholders using targeted factsheets. The following factsheets are available:
- HVAC Grading Factsheet: Builders
- HVAC Grading Factsheet: Raters
- HVAC Grading Factsheet: HVAC contractors
- HVAC Grading Factsheet: HVAC designers

Watch the "ENERGY STAR + HVAC Grading" webinar: Review this session held on 11/5/2020. Contact us at energystarhomes@energystar.gov to request a recording.

Complete Training: For Raters for whom RESNET is their HCO, complete the required training modules through the RESNET Portal.

View Instructional Videos: View optional instructional videos on measuring airflow, not prepared by EPA, on The Energy Conservatory’s HVAC Air Flow and Pressure Measurement Training page.

View past ENERGY STAR Residential New Construction technical bulletins.

Best regards,
The ENERGY STAR Residential New Construction team
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