

ENERGY STAR Residential New Construction Programs: The Year in Review/The Year Ahead

October 28, 2020



Single Family Homes



Multifamily Homes



Manufactured Homes

Jon Passe

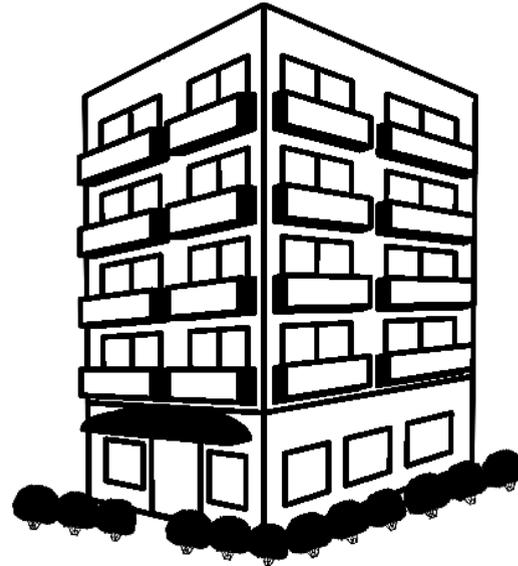
Chief, ENERGY STAR
Residential Branch



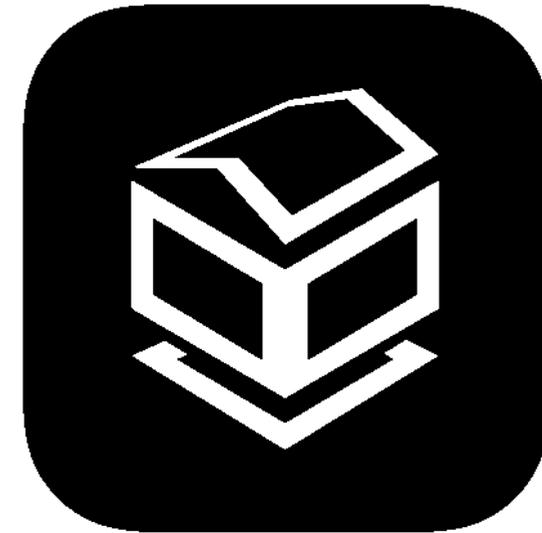
Much like art, masterpieces take time...



HVAC QI



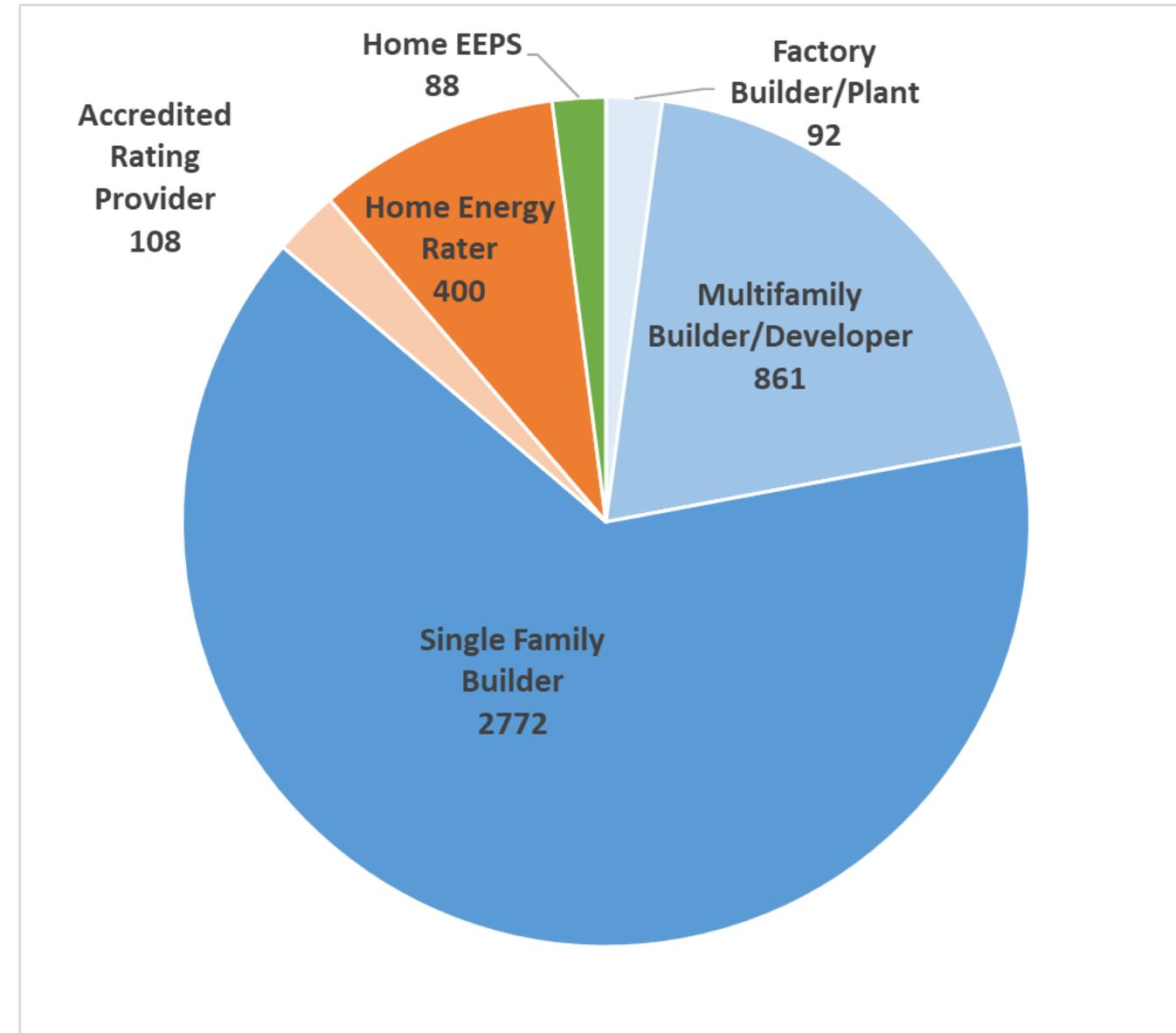
One Multifamily



RaterPRO

Partners By Organization Type

- Over 3,000 active Builder and Developer Partners
- Over 400 active Energy Rating Companies
- 88 Program Sponsor Partners

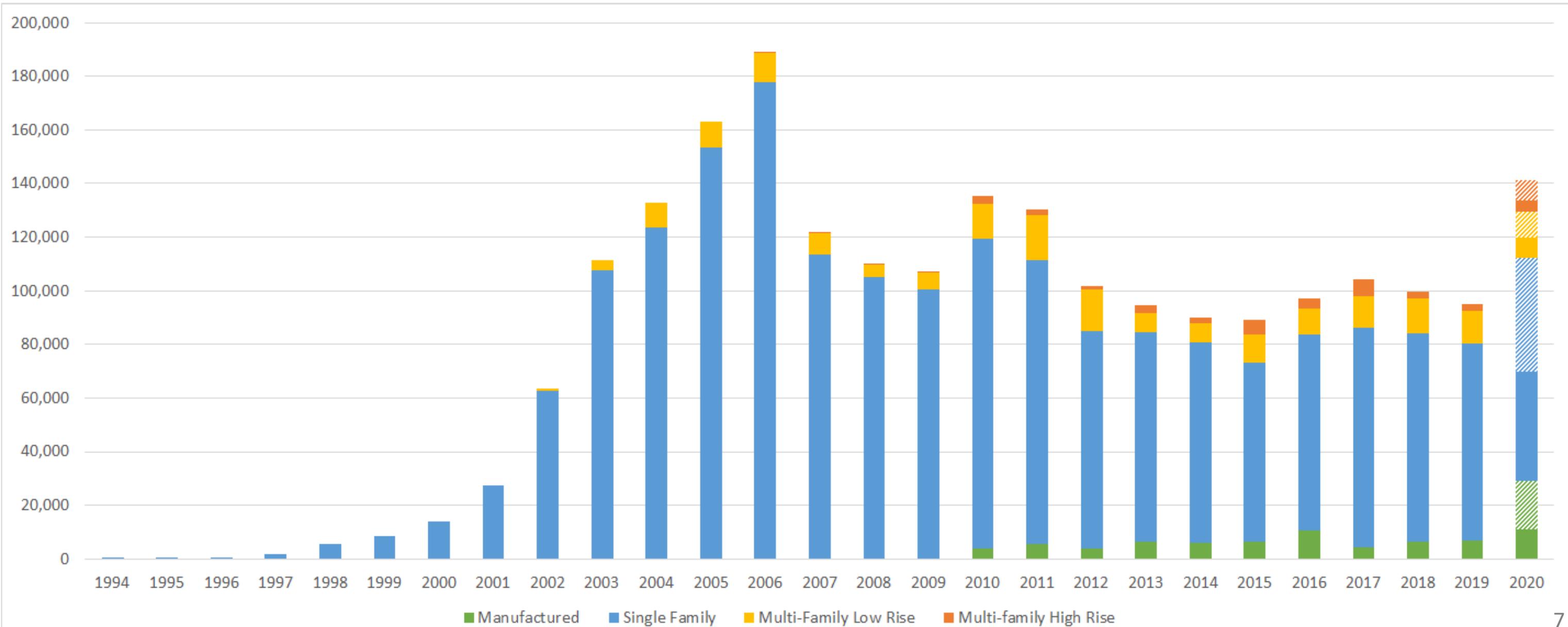


Top 25 Builders, 2020

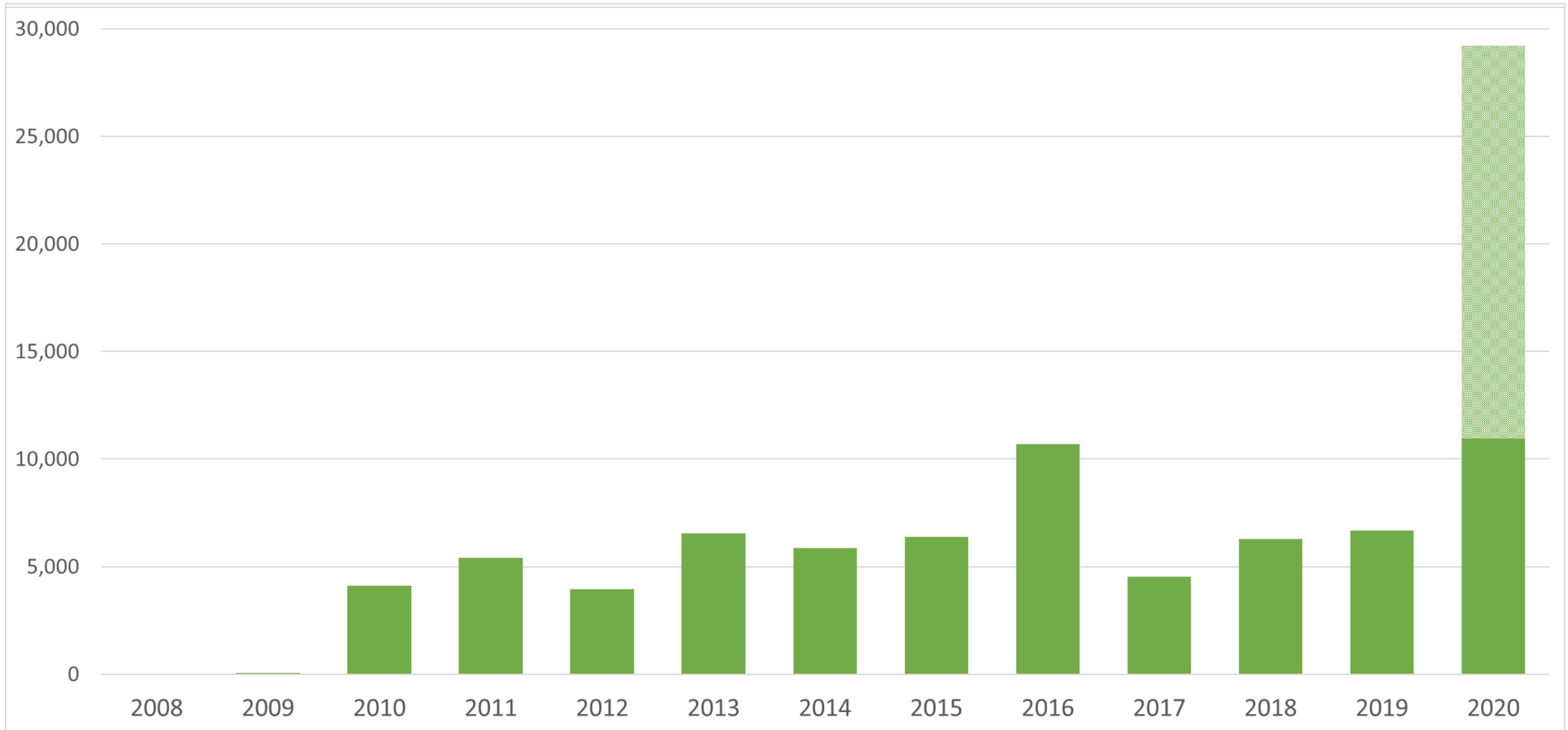
RANK	ACTIVE ENERGY STAR PARTNER?	COMPANY	2019 TOTAL CLOSINGS	2019 GROSS REVENUE (In Millions)
1		D.R. Horton	58,434	\$17,378
2		Lennar Corp.	51,491	\$20,560
3		PulteGroup	23,232	\$9,916
4		NVR	19,668	\$7,221
5		KB Home	11,871	\$4,538
6		Taylor Morrison	9,964	\$4,623
7		Meritage Homes	9,267	\$3,605
8		Toll Brothers	8,107	\$7,224
9		Century Communities	8,000	\$2,481
10		LGI Homes	7,690	\$1,838
11		Clayton Properties	7,369	\$2,347
12		M.D.C Holdings	6,974	\$3,205

RANK	ACTIVE ENERGY STAR PARTNER?	COMPANY	2019 TOTAL CLOSINGS	2019 GROSS REVENUE (In Millions)
13		M/I Homes	6,296	\$2,420
14		Hovnanian Enterprises	5,713	\$2,433
15		Beazer Homes	5,500	\$2,077
16		TRI Pointe Group	4,921	\$3,069
17		David Weekley Homes	4,804	\$2,175
18		Ashton Woods Homes	4,763	\$1,780
19		William Lyon Homes	4,051	N/A
20		Habitat for Humanity International	3,841	\$493
21		Mattamy Homes	3,624	\$1,260
22		Shea Homes	3,478	\$2,253
23		Highland Homes	3,261	\$1,323
24		Perry Homes	3,046	\$1,212
25		Dan Ryan Builders	2,443	\$798

ENERGY STAR Certifications By Year



Growth in ENERGY STAR Certified Manufactured Housing



Dean Gamble

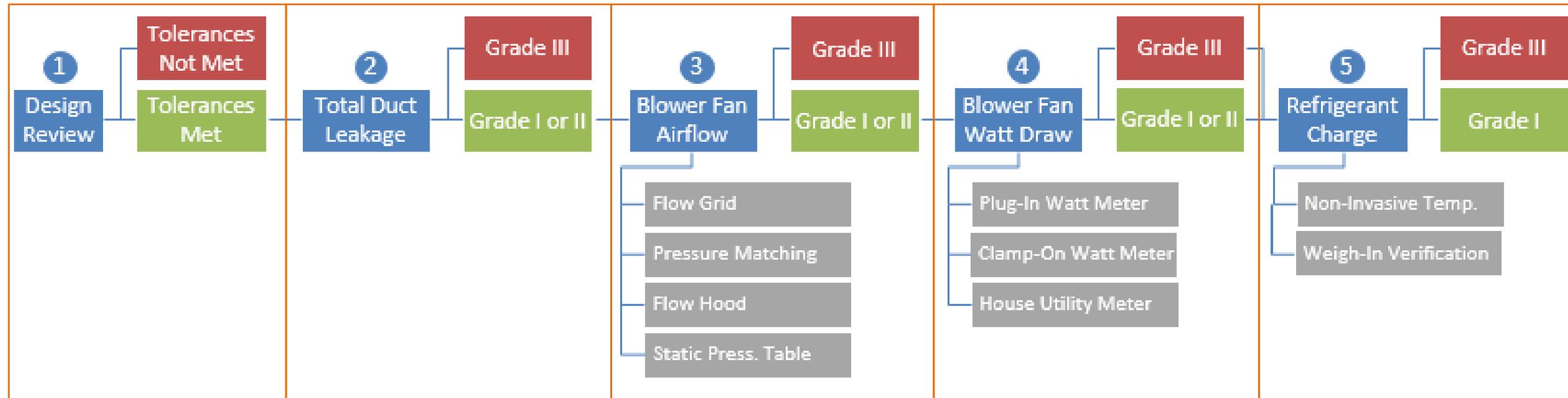
Technical Manager,
ENERGY STAR Certified Homes



HVAC Grading



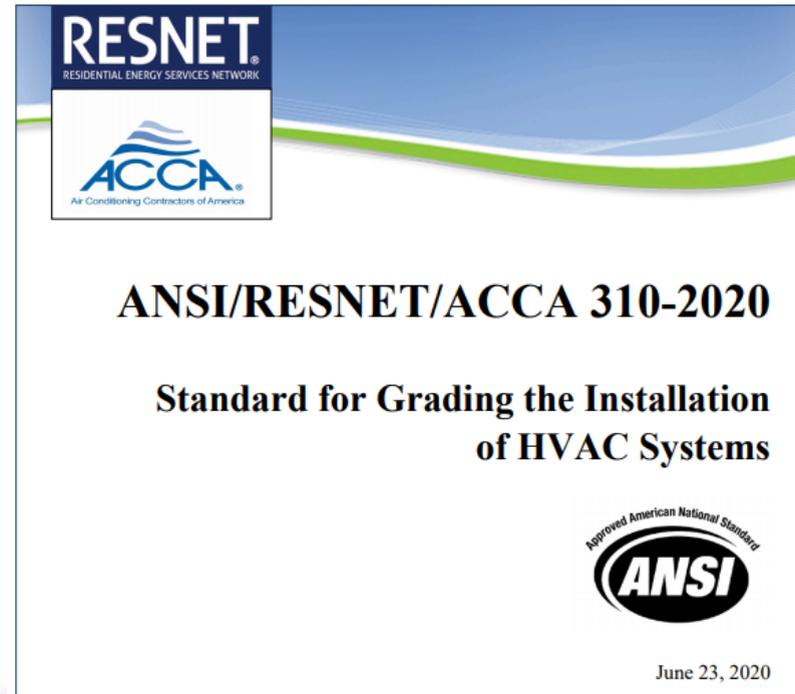
ANSI / RESNET / ACCA Std. 310: Standard for Grading the Installation of HVAC Systems



1. Standard 310: HVAC Grading Standard

- **What is this?** Defines how the Rater completes the design review, field tests, and designates the grade.
- View standard at: <https://www.resnet.us/about/standards/resnet-ansi/>

 **Status:** Complete!



2. RESNET Training & Evaluation

- **What is this?** Trains and evaluates Raters and RFI's on new requirements in Std. 310, prior to use.

 **Status:** Complete and available for Raters today!

ANSI / RESNET / ACCA 310 Training
Module 1: Intro, Design Review,
Total Duct Leakage Test

ANSI / RESNET / ACCA 310 Training
Module 2: Blower Fan Airflow

ANSI / RESNET / ACCA 310 Training
Module 3: Blower Fan Watt Draw

ANSI / RESNET / ACCA 310 Training
Module 4: Refrigerant Charge

3. Standard 301: Energy Ratings Update

- **What is this?** Integrates Std. 310 into the overall rating process; updates definitions, calculations, minimum rated features, and on-site inspection protocols.

 **Status:** Complete!

ANSI/RESNET/ICC 301-2019 Addendum B-2020
Clarifications, HVAC Quality Installation Grading, and
Dehumidification

4. Rating software updates

- **What is this?** Rating software vendors must add the inputs and calculations to support Std 310.
- **Status:** Underway.



REM/RateTM

5. Std. 310 HVAC Design Report Template

- **What is this?** Create new Std. 310 HVAC design report and integrate into Wrightsoft, RHVAC, and EnergyGauge.
- **Status:** Underway.

ANSI / RESNET / ACCA 310 HVAC Design Report ^{1,2}

1. Design Basis & Architectural Scope			
1.1 Designer company:	Superior HVAC Design Incorporated	Designer name:	Ms. Maximum Designer
		Date:	07-01-2020
1.2 Software name and version used to complete design:	Acme Design Software, v1.0		
	N/A <input type="checkbox"/>		
For a Dwelling, Townhouse, or Dwelling / Sleeping Unit Within (i.e., duplex):			
1.3 Architectural plan name or address of the property:	Sunflower Plan		
1.4 Architectural options included in the design: ³	Balcony with sliding glass door		
1.5 Other architectural options that the design can be used with: ⁴	Bonus room		
For a Dwelling / Sleeping Unit Not Within a Dwelling or Townhouse (e.g., condo, apartment):			
1.6 Unique ID for the bldg. that the dwelling / sleeping unit is in: ⁵	Success Lofts @ 135 Prosper Ave		
1.7 Architectural plan used in design:	Unit A-3		
1.8 Other architectural plans that the design can be used with: ⁶	Unit A-1, Unit A-2, Unit B-1, Unit B-2, Unit B-3		
1.9 Architectural options included in the design: ³	Balcony with sliding glass door		
1.10 Other architectural options that the design can be used with: ⁴	Media room		
1.11 Dwelling / sleeping unit location used in design: ⁷	Top-Floor Corner Unit		
2. Dwelling-Unit Mechanical Ventilation System Design			
Ventilation System Type & Control Location:	System 1	System 2	System 3
2.1 Unique name or ID for each system: ⁸	ERV 1		
2.2 Vent. equipment manufacturer & model #: ⁹	Broan DEF782		
2.3 Specified system type: ¹⁰	ERV		
2.4 Specified control location: ¹¹	Utility Rm.		
2.5 Ventilation zone name(s) served by system: ¹²	Living Area		
Ventilation Zone Served by Ventilation System:	Zone 1	Zone 2	Zone 3
2.6 Ventilation zone name: ¹²	Living Area		
2.7 Design basis: ¹³	62.2-2010		
2.8 Floor area (sq. ft.) and # bedrooms in vent. zone:	2,200	3	

ANSI / RESNET / ACCA 310 HVAC Design Report ^{1,2}

4. Heating & Cooling Equipment Selection	1		2		3	
Air Conditioners, Heat Pumps, & Other Cooling Equipment (If none of these will be installed, check "N/A")						
					N/A <input type="checkbox"/>	
4.1 Unique name or ID for each system:	AC #1		HP #1			
4.2 Zone that system serves (See Item 3.6):	Living Area		Basement			
4.3 Equipment type: ²⁹	AC		HP			
4.4 Evaporator / fan coil mfr. & model #: ³⁰	Goodman AC16abc		Goodman HP15def			
4.5 Condenser mfr. & model #: ³⁰	Goodman Cdr16abc	N/A <input type="checkbox"/>	Goodman Cdr15def	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.6 AHRI ref. #, or check box for alt. OEM doc.: ³¹	12345678	OEM <input type="checkbox"/>	46512345	OEM <input type="checkbox"/>	OEM <input type="checkbox"/>	
4.7 If AC / HP, rated cooling efficiency: ³²	16 SEER	N/A <input type="checkbox"/>	15 SEER	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.8 If HP, rated heating efficiency: ³³		N/A <input checked="" type="checkbox"/>	9.5 HSPF	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.9 If HP, ratio of max. to min. rated capacity:		N/A <input checked="" type="checkbox"/>	3:1	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.10 If AC / HP, blower fan motor & speed type: ³⁴	PSC	Single	N/A <input type="checkbox"/>	ECM	Variable	N/A <input type="checkbox"/>
4.11 If AC / HP, compressor speed type: ³⁵	Single	N/A <input type="checkbox"/>	Variable	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.12 If AC / HP, meter device type: ³⁶	Piston / Cap	N/A <input type="checkbox"/>	TXV	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.13 If TXV or EEV, OEM subcooling target (°F): ³⁷		N/A <input checked="" type="checkbox"/>	5	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.14 Filter performance metric and rating: ³⁸	MERV 7	N/A <input type="checkbox"/>	MERV 7	N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
Furnaces, Boilers, & Other Heating Equipment (If none of these will be installed, check "N/A")						
					N/A <input type="checkbox"/>	
4.15 Unique name or ID for each system:	Furnace #1					
4.16 Zone that system serves (See Item 3.6):	Living Area					
4.17 Equipment type: ³⁹	Furnace					
4.18 Equipment manufacturer & model #:	Goodman AC16abc					
4.19 AHRI ref. #, or check box for alt. OEM doc.: ³¹	54648977	OEM <input type="checkbox"/>		OEM <input type="checkbox"/>	OEM <input type="checkbox"/>	
4.20 If furnace or boiler, rated heating efficiency:	90 AFUE	N/A <input type="checkbox"/>		N/A <input type="checkbox"/>	N/A <input type="checkbox"/>	
4.21 If furnace, blower fan motor & speed type: ³⁴	Other	Variable	N/A <input type="checkbox"/>		N/A <input type="checkbox"/>	N/A <input type="checkbox"/>



HVAC Grading: What you can do today

1. Review Standard 310.
2. Complete Rater training.
3. Try Standard 310 on a single house. The “ANSI/RESNET/ACCA 310-2020 Data Field Tool” is available at <https://www.resnet.us/about/standards/resnet-ansi/> under Spreadsheet Calculators.

Standard 310 Field Data Tool:

Evaluation of the Blower Fan Volumetric Airflow

Prerequisites

Did total duct leakage achieve Grade I or II designation?

Yes

HVAC equipment is operational & matches specification?

Yes

If specified, mech. vent. system is operational & matches specification?

Yes

If specified, distribution system installed, including registers & grilles?

Yes

If specified, filter installed & matches specified performance rating?

Yes

Have prerequisites been met?

Yes

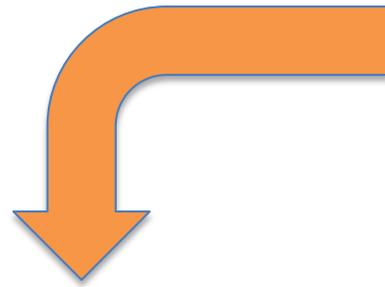
Information from HVAC Design Report

Enter design-specified blower fan airflow (Q_{design})

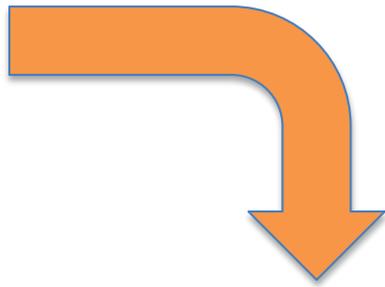
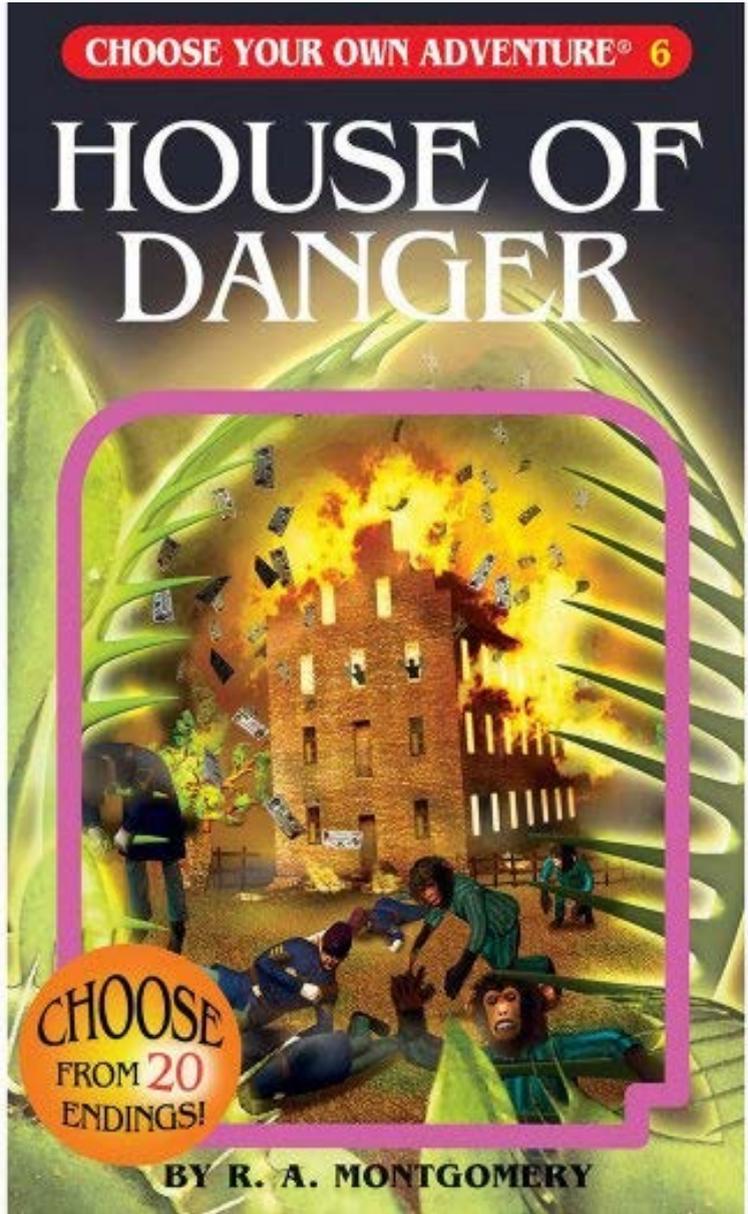
CFM

4. Tell your rating software and HVAC design software vendors that you’re looking forward to them adding Standard 310.

HVAC Grading: Integration into ENERGY STAR



**Track A:
HVAC
Grading**



**Track B:
HVAC
Credential**

HVAC Grading: Benefits

- Potential to earn new HERS / ERI points; meet the tax credit for more homes.
- Burden of finding a credentialed contractor is removed.
- HVAC installing contractor no longer has to complete paperwork.
- More effective feedback loop is created.
 - Contractor is responsible for proper installation
 - Rater uses standard procedures to assess for the rating
 - Proper installations rewarded / improper installations can be corrected

Training & Recruitment Resources

HVAC Grading Factsheets

- Highlights of HVAC grading for:
 - Builders
 - Raters
 - HVAC Designers
 - HVAC Contractors

ENERGY STAR® Certified Homes
HVAC Grading for Builders

Overview

An exciting new option for meeting ENERGY STAR HVAC design and commissioning requirements is here. This new option, called “Track A - HVAC Grading”, leverages the new ANSI / RESNET / ACCA 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 are rewarded with new ERI and HERS points.



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. Partners can continue to follow the original design and commissioning requirements if desired, which have been rebranded “Track B – HVAC Credential”. However, for homes using the new option, stepping up from an ERI or HERS rating to ENERGY STAR certification will be easier than ever.

HVAC grading solves the biggest challenges to certifying ENERGY STAR homes:

- **Does not require the use of a credentialed HVAC contractor**
- **Rewards properly installed HVAC equipment with ERI and HERS points**
- **Integrates most ENERGY STAR HVAC requirements into a standard energy rating**

FAQs

ENERGY STAR Timeline: When can I start using it? When do I have to use it?

The “Track A – HVAC Grading” option became available for use in late 2020. However, Raters will need to complete additional training and evaluation before using the standard.

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



ENERGY STAR® is the simple choice for energy efficiency. For more than 25 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov.

ENERGY STAR® Certified Homes
HVAC Grading for Builders

What does this mean for me?

You now have a new option for assessing the quality of your HVAC systems. Proper design and installation translate to higher efficiency, greater comfort, and fewer homeowner complaints.

In addition, the added savings can help you meet the federal tax credit for efficient new homes, as well as lower your ERI / HERS Index, which will make it easier and more cost-effective to certify. For homes already doing an energy rating, the incremental cost to reach ENERGY STAR certification may be much smaller than before.

How much will it cost?

Builders' labor costs will increase because the three new field tests take approximately 30 minutes. However, this added time will be rewarded with a lower ERI or HERS Index for quality-installed HVAC systems. Therefore, HVAC grading can be used instead of more expensive measures (higher efficiency HVAC equipment) to meet the ENERGY STAR ERI Target. Overall, this has the potential to lower the cost of certification.

What do HVAC designers and contractors have to do anything under this new path?

The HVAC system still must be properly designed and installed by them in order to meet ENERGY STAR requirements and lower the ERI or HERS Index of the home.

The primary difference is that Raters will be verifying key elements of the design and installation quality **purpose of the rating**. This is very similar to tight ducts – HVAC contractors must seal the ducts to have low leakage to outside, while Raters are responsible for verifying their tightness.

Will the HVAC contractors I work with still be credentialed?

If you have a Track B – HVAC Credential, then the contractors must be credentialed, the same as before. If you have a Track A – HVAC Grading, it's recommended that you work with a credentialed contractor until you have used Track A long enough to ensure that your HVAC systems are consistently well-designed and properly installed. Only then is it recommended that you discuss with your contractors whether there's value in maintaining the credential.

What do I need to do next?

Discuss with your Rater to see if they're prepared to use Track A – HVAC Grading. If so, have them evaluate several homes to see whether the HVAC systems meet ENERGY STAR requirements using the new standard. If so, consider developing a plan to use Track A on all homes.

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



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ENERGY STAR + HVAC Grading



Efficiency Feature	<ul style="list-style-type: none">• Energy rating with features locked in
Comfort Features	<ul style="list-style-type: none">• Complete thermal enclosure system• Bedroom comfort vents
Air Quality Features	<ul style="list-style-type: none">• Whole-house fresh air system• Kitchen and bath fans that work well• MERV 6+ filter, properly installed• Combustion safety
Durability Feature	<ul style="list-style-type: none">• Complete water management system

- Webinars and 'sell sheets' will help reintroduce the ENERGY STAR program in a world with HVAC grading.

“While you Were Away” Training Materials

- Partners who disengaged with the launch of Version 3 may not be aware that:
 - Rater tasks have been reduced by 1/3 through the Revision process
 - Paperwork collection has been reduced to the one-page HVAC design report
 - HVAC grading will further streamline certification
- These optional training materials will reacquaint builders and Raters with the current program requirements and highlight the changes since 2011.



Program Requirements

Revision 11

- Coming in **November!**
- Key change to note:

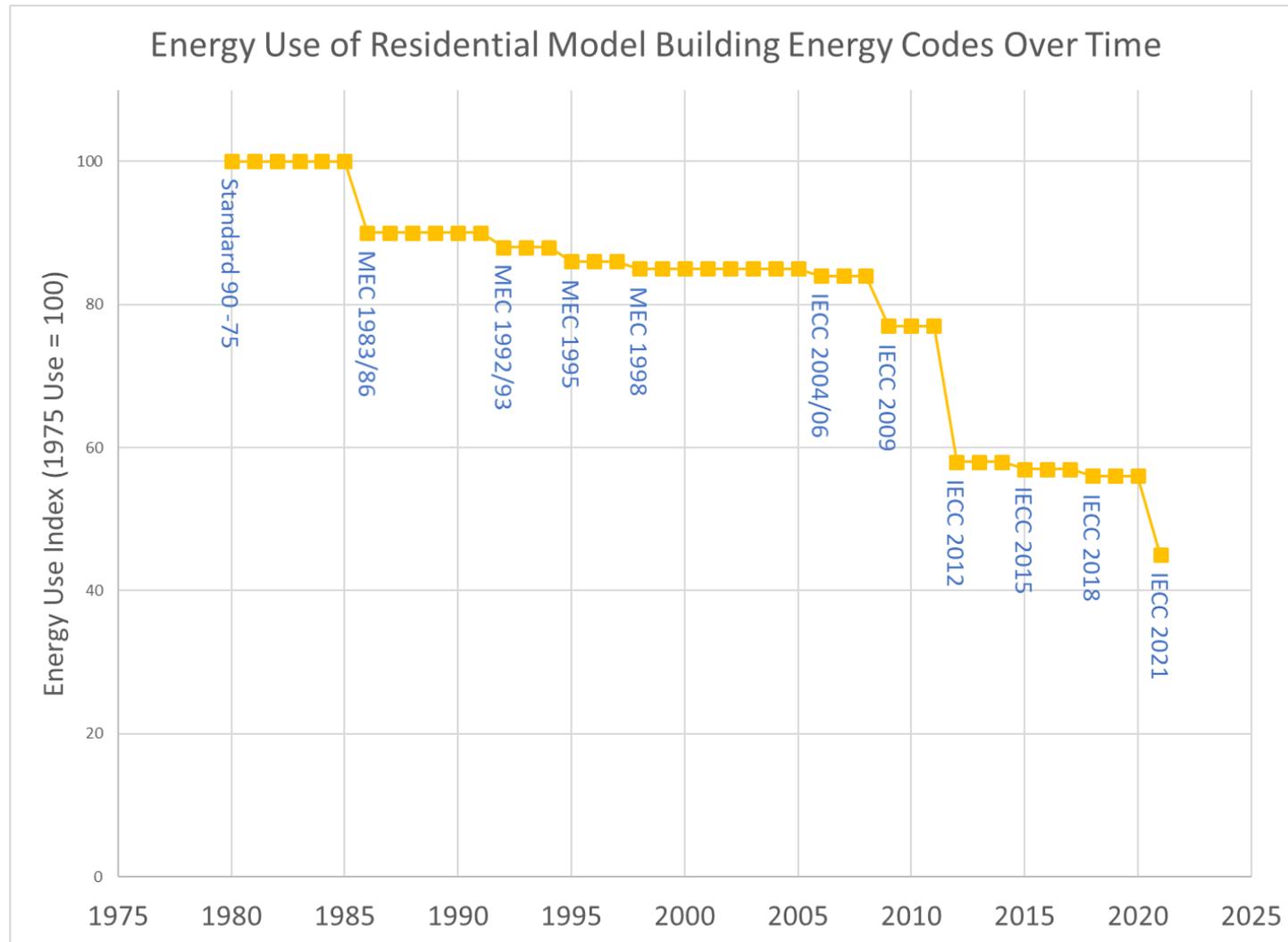
ENERGY STAR Single-Family New Homes Program

- For projects permitted on or after July 1, 2021, program eligibility for SFNH becomes:
 - Dwellings (e.g. single-family homes, duplexes)
 - Townhouses
- All other multifamily projects certified using Multifamily New Construction Program.
- Rev. 11 will also clarify several aspects of the ventilation requirements and contain additional minor clarifications and refinements.
- Attend webinar on Revision 11 on **Thursday, November 12th** to learn more.

National Program Version Updates

- **New** states implementing National Version 3.1:
 - **Pennsylvania** implementation date: 04/01/2021
 - **Nebraska** implementation date: 07/01/2021

Development of National v3.2



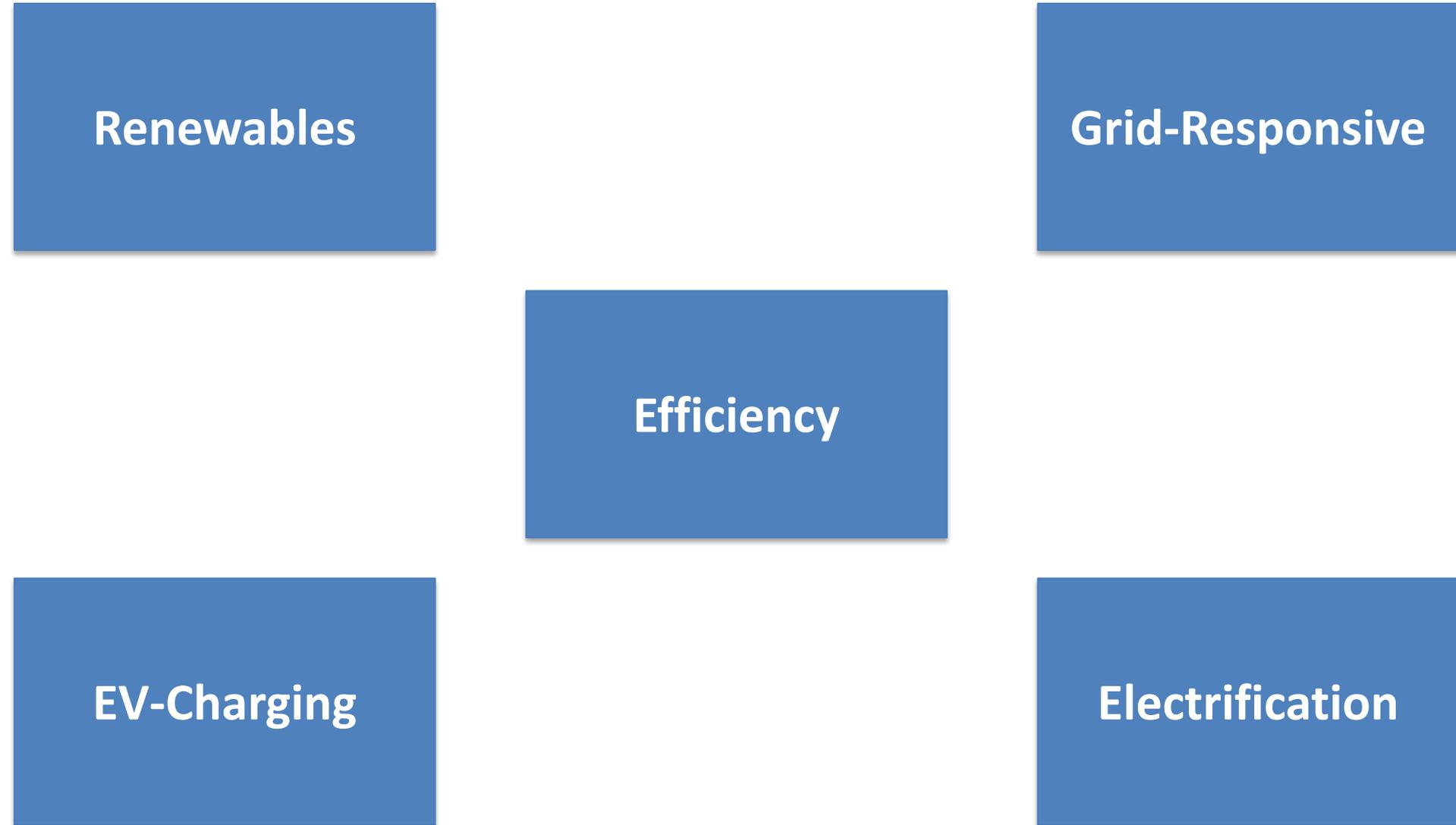
Based on data from ACEEE & PNNL

- 2021 IECC ~10% more stringent.
- Other states advancing with custom codes.
- As a result, developing National v3.2:
 - For use in states with aggressive codes.
 - Can be incentivized for early adoption.

Regional Specs

- New Caribbean program requirements, for use in Puerto Rico and US Virgin Islands:
- The prior “Tropics” program requirements have been rebranded for the “Pacific” and can still be used in Hawaii, Guam, and the Northern Mariana Islands.
- In the year ahead, we’ll be revisiting the program requirements for Hawaii.
- And finally, we’re hard at work on CA v3.3 program requirements.

Thinking Beyond Efficiency





Rebecca Hudson

Multifamily New Construction Manager

Multifamily New Construction – Program Overview



Multifamily New Construction – Program Overview

- Builds off success in single-family
- Adapts to multifamily
 - Flexible
 - Comprehensive
 - Streamlined

Multifamily New Construction – Key Dates

- Transition Extension
 - Originally January 1, 2021
 - Moved to July 1, 2021

ENERGY STAR Residential New Construction Programs: Present



} SFNH



} MFHR



} MFNC

ENERGY STAR Residential New Construction Programs: **Future***



} SFNH

(permit before 7/1/2021)



} MFHR

(permit before 7/1/2021 + application before 1/1/2021)



} MFNC

***As of July 1, 2021**

Multifamily New Construction – Key Dates

- ERI Path Availability for 6+ stories
 - ANSI 301-2019 allows for ERI Ratings of dwelling units in buildings over 5 stories
 - ERI Path is available once software updates to ANSI 301-2019 (anticipated by end of 2020) and includes MFNC Reference Design

Multifamily New Construction - Transition Resources

- [Comparison of SFNH to MFNC](#)
- [Comparison of MFHR to MFNC](#)
- [MFNC Certification Process Webpage](#)
- [Technical Bulletins on Key Components](#)
 - [How to Get Your ENERGY STAR Multifamily New Construction Project Team Ready \(Aug 2020\)](#)
 - MFNC Certification Process (coming soon)
- [Recorded MFNC Webinars](#)



Technical Bulletin:
How to Get Your ENERGY STAR Multifamily New Construction Project Team Ready
August 12, 2020

The transition to EPA's ENERGY STAR Multifamily New Construction (MFNC) program is fast approaching. Is your project team ready?

Key participants for the Multifamily New Construction program include builders / developers, raters, functional testing agents, and ASHRAE path energy modelers. The ENERGY STAR Multifamily team created the guide below to highlight key steps to complete before starting an MFNC project.

- [Builders / Developers](#)
- [Raters](#)
- [Functional Testing Agents](#)
- [ASHRAE Path Energy Modelers](#)

Builders / Developers

Builders and developers work with [ENERGY STAR Rater partners](#) to construct ENERGY STAR certified multifamily buildings that meet EPA requirements for improved comfort, energy efficiency, and durability.

To identify an ENERGY STAR Rater near you who has trained in the specifics of MFNC, visit the [Energy Rating Companies](#) page to download a [list of MFNC trained raters](#).



While the Rater is responsible for verifying many [program requirements](#), it is the responsibility of the builder/developer to review the [National Water Management System Requirements](#) and ensure that each multifamily building is designed and constructed to meet those requirements.

Partnership: Multifamily builders and/or developers must sign an [ENERGY STAR Partnership Agreement](#) with EPA acknowledging their roles and responsibilities as a partner and documenting their commitment to meet the MFNC Program Requirements.

Credentials/Prerequisites: None.

Training: [Builder / Developer Orientation Video](#) is viewed as part of the Online Partnership Agreement above.

Directory: [ENERGY STAR Partner Locator](#)

Visit the [Builders & Developers](#) page and the [MFNC Certification Process](#) page to learn more.

Multifamily New Construction – Revision 02

- Rev. 02 – flexibility and new options for you!

Multifamily New Construction – Revision 02 Highlights

Additional Flexibility, Alignment with Single-Family, Clarifications, and Streamlining

Attend webinar on Revision 02 this [Friday, October 30th](#) to learn more.

Performance Target

- ASHRAE Path performance target options
- Reference Design adjustments

Envelope

- Clarifications on thermal bridging

Multifamily New Construction – Revision 02 Highlights

HVAC Systems

- Allowance for HVAC Grading for residential systems in common spaces
- Allowance to use Single-Family HVAC Design Report for dwelling units
- HVAC Functional Testing (FT) Sampling Protocols
- FT Agent may now be a Licensed Professional Engineer (Mechanical Engineer)
- Clarifications and streamlining functional tests and inspections

Required for projects with permits or permit applications on or after July 1, 2021

Multifamily New Construction – Revision 02 Highlights

Caribbean MFNC Program Requirements

- Built off Single-Family New Homes Caribbean Req'ts
- Expands to common spaces
- Adds flexibility



Multifamily New Construction – The Year Ahead

Supporting our Partners

- Technical Resources:
 - Functional Testing Checklist webinars and training
 - Guidance on ANSI / RESNET / ACCA Std. 310 HVAC Grading and Multifamily
 - Video(s) of MF-specific test(s)
 - Multifamily Workbook Webinar
- Specification:
 - Align with Single-Family response to new codes and general updates
 - Continued clarifications and streamlining updates expected in Rev. 03 (next fall)
 - Reference design analysis post-ANSI 301-2019

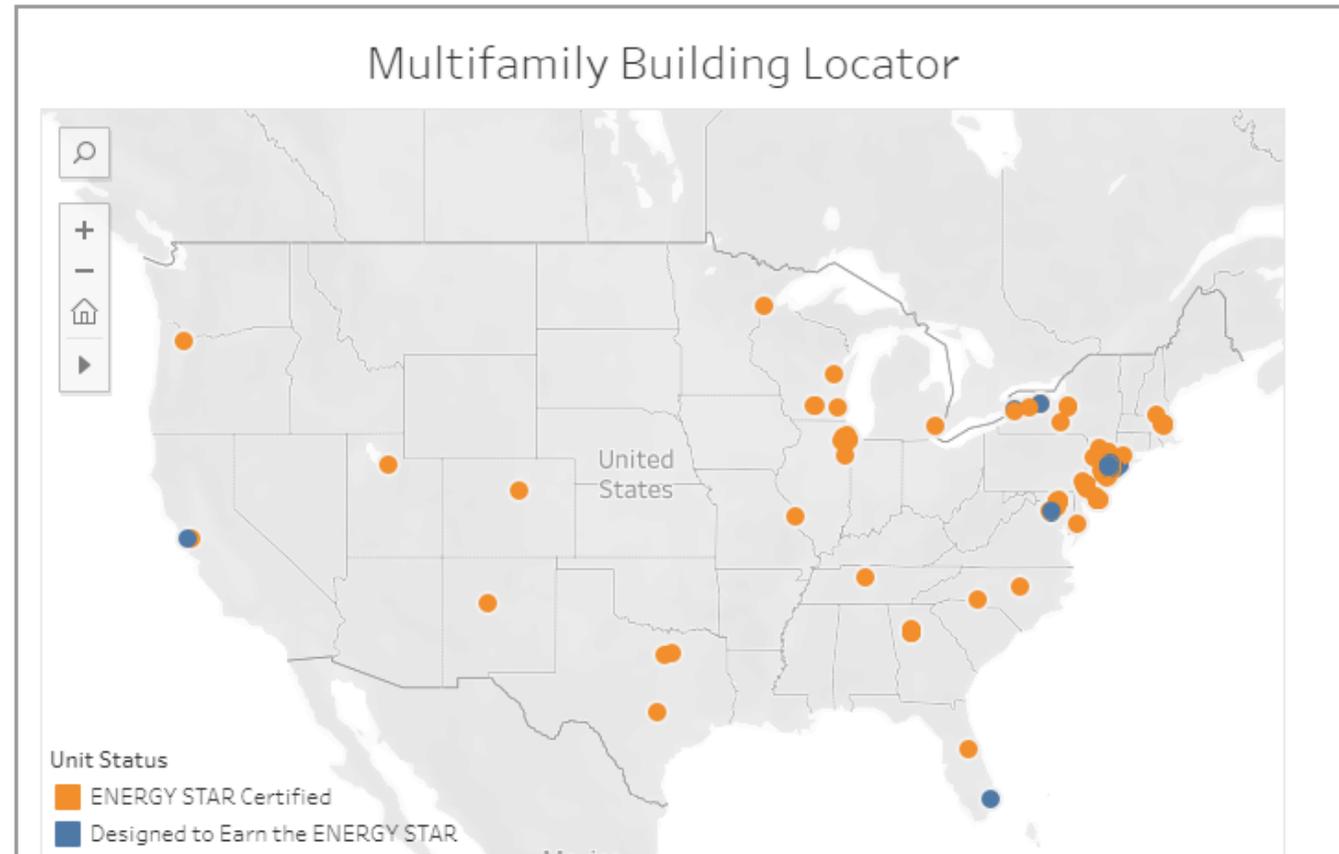
Multifamily New Construction – Marketing Options

- Program Requirements ▼
- Single Family Homes ▶
- Multifamily Buildings ▼
- Multifamily New Construction Certification Process ▶
- Multifamily New Construction Building Eligibility
- MFNC Caribbean Program Requirements, Version 1
- Multifamily High Rise Program (New Construction) ▼
- Program Requirements
- Building Eligibility
- Certification Process
- Guidance Documents
- Training Resources
- MFHR Developers
- Licensed Professionals
- Energy Professionals
- Utility Support
- Benchmarking
- Certified Multifamily Units
- Manufactured Homes

MULTIFAMILY BUILDING LOCATOR

Click on a location within the map to see more information, including a link to the building's profile (where available). Designed to Earn the ENERGY STAR designates buildings under construction where the design has met the ENERGY STAR requirements, but post-construction verification is still required for apartments to earn ENERGY STAR certification.

If you are experiencing issues with the interactive features of the map or tables below, try opening the map in a new tab by [clicking here](#) **EXIT** →



Multifamily New Construction – Marketing Options

Unit Labeling (required)



Building Labeling (optional)



Multifamily New Construction – Marketing Options

Unit Certificate (required)

Building Certificate (optional)

ENERGY STAR® CERTIFIED NEW CONSTRUCTION

Builder/Developer Name: Gamble Builders
 Permit Date/Number: 4 April 2011
 Home/Unit Address: 1310 L Street
 Washington DC 20005
 Rating Company: G Force Testing
 Rater Identification Number: 2345678
 Rating Date: 6 July 2011
 ENERGY STAR Program/Version Number: 3.0

HERS' Index
 65
 This value is not intended to be used for code compliance.

ENERGY STAR® CERTIFIED NEW CONSTRUCTION

Builder/Developer Name: Gamble Builders
 Permit Date/Number: 4 April 2011
 Home/Unit Address: 1310 L Street
 Washington DC 20005
 Rating Company: G Force Testing
 Rater Identification Number: 2345678
 Rating Date: 6 July 2011
 ENERGY STAR Program/Version Number: 3.0

Standard Features of ENERGY STAR Certified New Homes and Apartments

Your ENERGY STAR certified new home or apartment has been designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

Thermal Enclosure System

A complete thermal enclosure system that includes comprehensive air sealing, quality-installed insulation, and high-performing windows to deliver improved comfort and lower utility bills.

Air Infiltration Test: 4 ACH50

Primary Insulation Levels:
 Ceiling: R-30 Floor: R-10
 Wall: R-19 Slab: R-8

Primary Window Efficiency:
 U-Value: 0.60 SHGC: 0.27

Water Management System

A comprehensive water management system to protect roofs, walls, and foundations.

Fishing, a drainage plane, and site grading to move water from the roof to the ground and then away from the home or building.

Water-resistant materials on below-grade walls and underneath reduce the potential for water entering the home or building.

Management of moisture levels in building materials during construction.

Heating, Cooling, and Ventilation System

A high-efficiency heating, cooling system, and ventilation system that is designed and installed for optimal performance.

Total Duct Leakage: 6 CFM25 per 100 sq. ft. Duct Leakage to Outdoors: 4 CFM25 per 100 sq. ft.

Primary Heating (System Type • Fuel Type • Efficiency): Fuel-fired Hydronic Distribution • Natural Gas • 90 AFUE

Primary Cooling (System Type • Fuel Type • Efficiency): Ground-source Heat Pump • Electric • 14.5 SEER

Energy Efficient Lighting and Appliances

Energy efficient products to help reduce utility bills, while providing high-quality performance.

ENERGY STAR Certified Lighting: 75%

ENERGY STAR Certified Appliances and Fans:
 Refrigerators: 1 Dishwashers: 1
 Ceiling Fans: 4 Exhaust Fans: 3

Primary Water Heater (System Type • Fuel Type • Efficiency): Electric Resistance Heater • Electric • 0.94 EF

Standard Features of ENERGY STAR Certified New Homes and Apartments

Your ENERGY STAR certified new home or apartment has been designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

Thermal Enclosure System

A complete thermal enclosure system that includes comprehensive air sealing, quality-installed insulation, and high-performing windows to deliver improved comfort and lower utility bills.

Air Infiltration Test: 4 ACH50

Primary Insulation Levels:
 Ceiling: R-30 Floor: R-10
 Wall: R-19 Slab: R-8

Primary Window Efficiency:
 U-Value: 0.60 SHGC: 0.27

Water Management System

A comprehensive water management system to protect roofs, walls, and foundations.

Fishing, a drainage plane, and site grading to move water from the roof to the ground and then away from the home or building.

Water-resistant materials on below-grade walls and underneath slabs to reduce the potential for water entering the home or building.

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ENERGY STAR® CERTIFIED NEW CONSTRUCTION

The U.S. Environmental Protection Agency awards the ENERGY STAR to the units in

Gamble Towers

on 10/5/2020

The units in this building are designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency.

Built by: **Hudson LLC** Verified by: **Parise Projects** Oversight by: **Residential Energy Services Network**

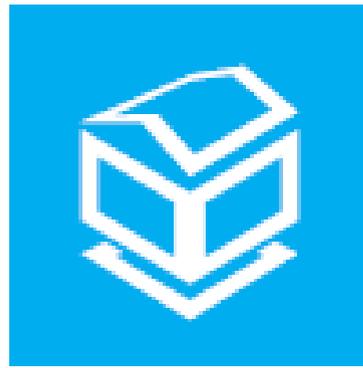
Multifamily New Construction – Action Items

- ❑ Visit [MFNC website](#)
- ❑ Complete Rater Training
 - Rater must have MFNC training to certify projects
 - Rater Test recently updated based on Partner feedback
- ❑ Design to MFNC
 - All multifamily goes through MFNC starting July 1, 2021
- ❑ Attend MFNC webinars
 - Section 5 of the HVAC Functional Testing Checklist
 - Multifamily Workbook

Elliot Seibert

Implementation Manager





ENERGY STAR®

RaterPRO™





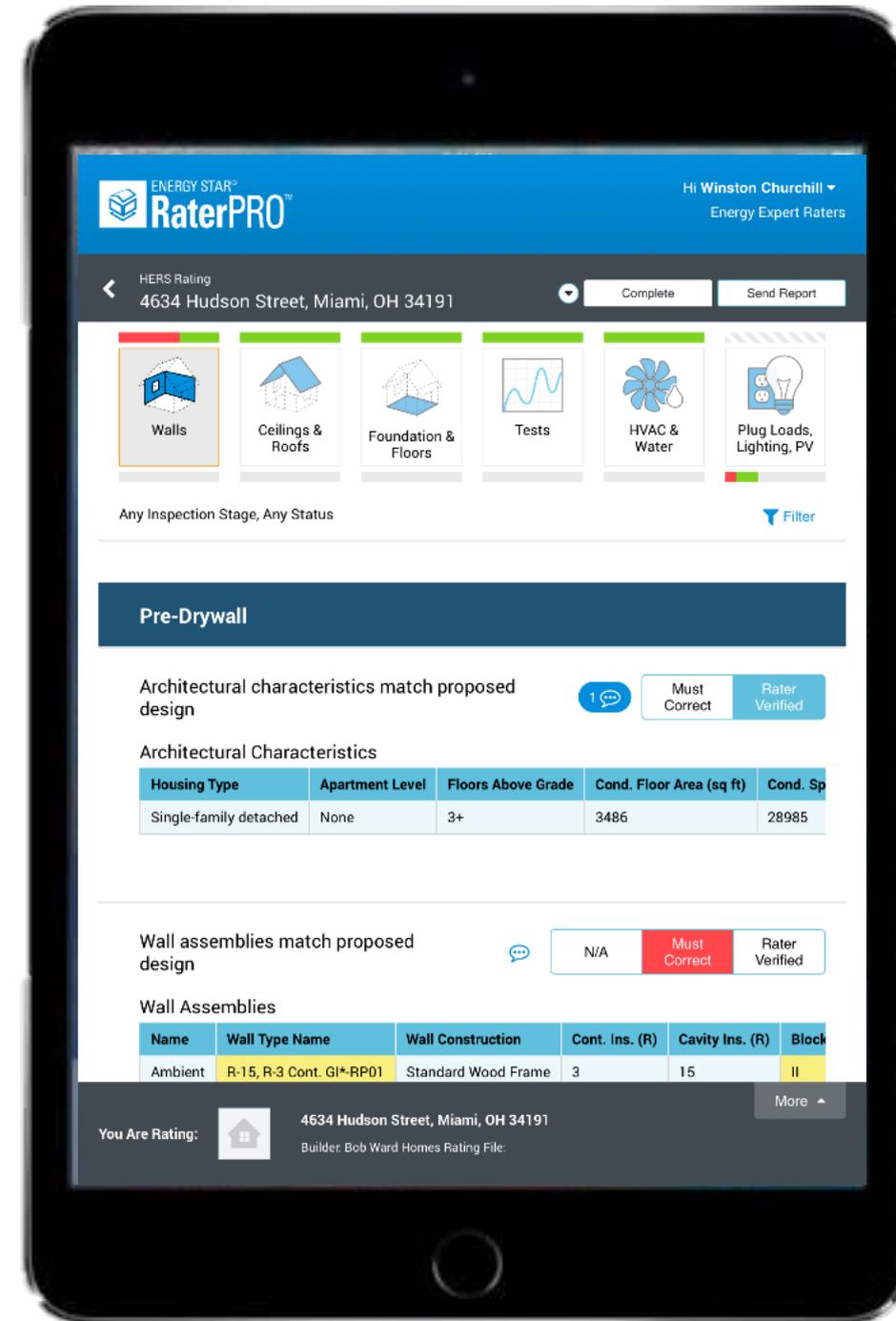
Version 1.0

Free and Available Now!

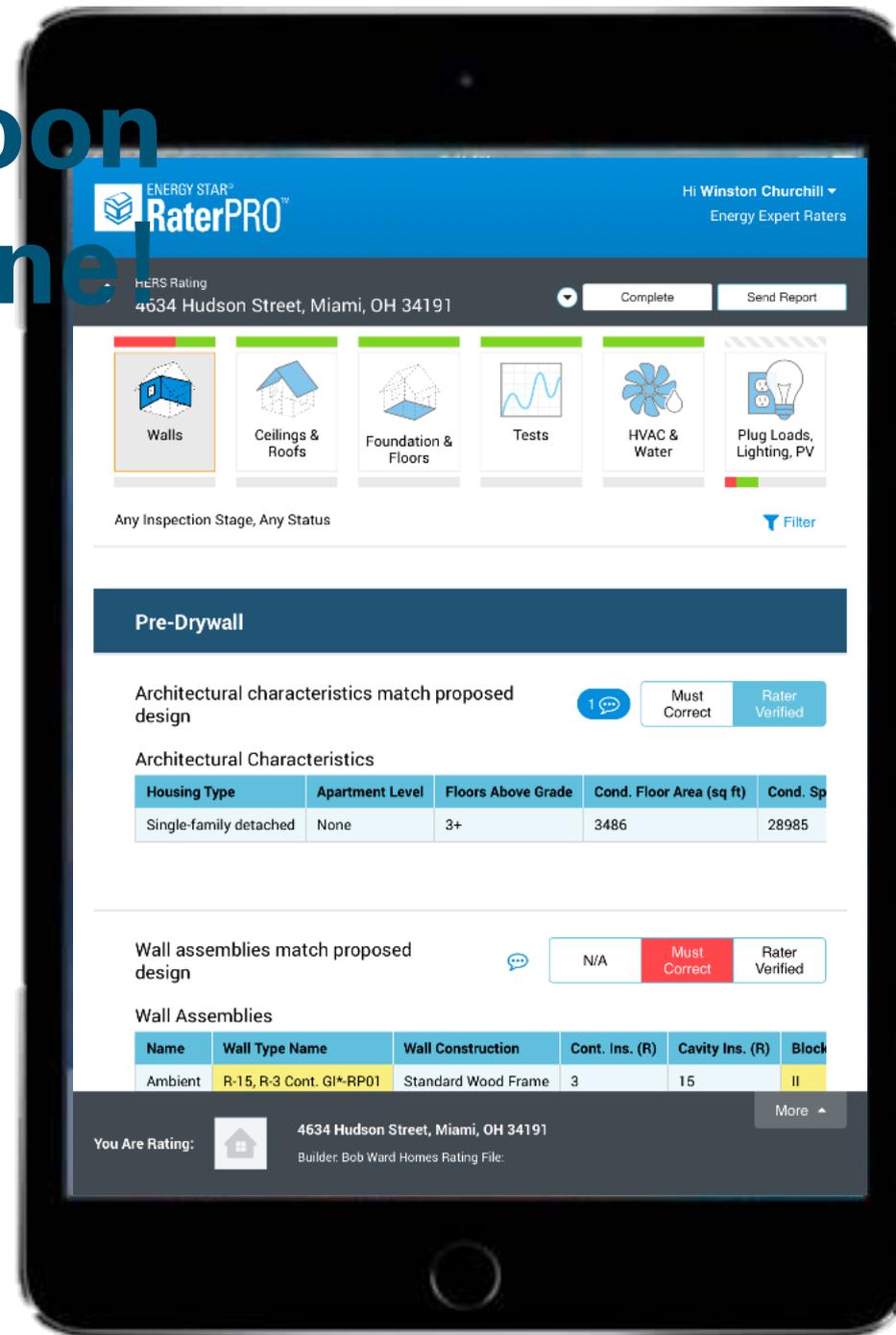
- Completely free, and available for all **Rater** and **Providers**
- Available for both **Apple** and **Android** Devices
- Compatible with **REM/Rate** and **Ekotrope**, with **EnergyGauge** coming soon

RaterPRO Stats

- Released August 2019
- **55** rater and provider companies
- Over **700** real-world jobs



Coming Soon to the Phone!



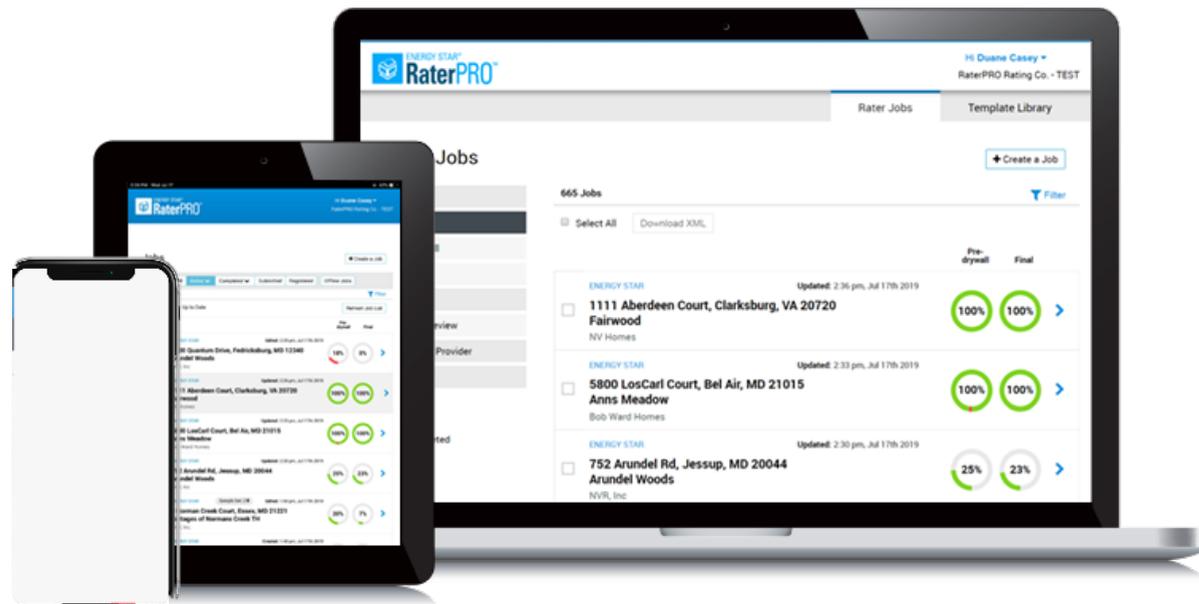
Demo

Open Source Update

- Available now as a free open-source project on Github
- Many back-end infrastructure, frameworks, and documentation improvements since last year

Phase 2: Free-to-Fork

- EPA will continue to own and operate 'RaterPRO'
- Version 1.0 source code released under MIT License
 - 3rd parties can fork versions on their own servers
 - Can sell modified version as commercial product
 - Must re-brand (can't use the name "RaterPRO")
- Limited EPA support resources

The logo features a blue square with a white icon of a cube with arrows pointing outwards, representing energy efficiency. To the right of the icon, the text "ENERGY STAR" is in a smaller, blue, sans-serif font, and "RaterPRO" is in a larger, bold, blue, sans-serif font with a trademark symbol (TM).

- Available to all raters and providers
- Completely **free**
- Open-Source
- Phone version coming soon

Join Today!

Visit: www.raterpro.net

Email: energystarhomes@energystar.gov

A photograph of a house under construction, showing the wooden frame and roof structure. The image is overlaid with a green semi-transparent banner that contains the text "New QA Checklist".

New QA Checklist

New QA Checklist



ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 10) 2020 Pilot Quality Assurance and Certification Review Checklists

An ENERGY STAR Quality Assurance Checklist shall be completed during each quality assurance file and field review (QA review) of homes being certified through the ENERGY STAR Certified Homes Program in accordance with the policies and procedures of the Home Certification Organization (HCO) ¹. For the remainder of 2020, this pilot checklist may be used as an optional alternative to the 2020 Rater Quality Assurance Checklist. Beginning in 2021, all QA reviews will use an updated checklist similar in format to this pilot.

ENERGY STAR Quality Assurance Checklist

Home Address: _____ City: _____ State: _____ Zip Code: _____			
Action Items / Summary of QA	Yes	No	N/A
If any Items are marked "No" or "Not Verified" an action/explanation summary document shall be attached.	<input type="checkbox"/>	-	<input type="checkbox"/>
Documentation Collection	Yes	No	N/A
Energy Rating File collected.	<input type="checkbox"/>	<input type="checkbox"/>	-
Rater Design Review Checklist collected, with no Items left blank.	<input type="checkbox"/>	<input type="checkbox"/>	-
Documentation that builder had an ENERGY STAR partnership agreement at the time of certification. If documentation of active partnership cannot be verified, contact energystarhomes@energystar.gov .	<input type="checkbox"/>	<input type="checkbox"/>	-
If Path B – HVAC Credential was pursued, documentation that HVAC contractor held a required credential at the time of certification, unless all equipment is an exempted type per Footnote 9, in which case check: <input type="checkbox"/> Exempted If documentation or active credential cannot be verified, contact energystarhomes@energystar.gov .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rater Field Checklist collected, with no Items left blank or marked Must Correct.	<input type="checkbox"/>	<input type="checkbox"/>	-
List of any exemptions or alternatives used by the Rater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Per 5b.1, written approval from designer collected if installed models do not match National HVAC Design Report.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Per 7.7, if smaller distance is used for inlet and outlet of balanced ventilation system per Footnote 49, manufacturer's instructions collected indicating that the smaller distance may be used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rater name, rater inspection dates and rater initials are recorded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any Builder Verified Items are used, builder employee, builder inspection date and builder initials are recorded.	<input type="checkbox"/>	<input type="checkbox"/>	-
HVAC Design Report collected, with no Items left blank.	<input type="checkbox"/>	<input type="checkbox"/>	-
Energy Rating File – File is consistent with program requirements, Rater's documentation, and field observations.	Yes	No	N/A
Energy Rating file passes the Home Certification Organization's (HCO's) quality assurance review checklist. ¹	<input type="checkbox"/>	<input type="checkbox"/>	-
ERI of the home meets or exceeds the ENERGY STAR ERI Target for the program version applicable at the time of certification.	<input type="checkbox"/>	<input type="checkbox"/>	-
Energy Rating file is consistent with the Rater Design Review Checklist	<input type="checkbox"/>	<input type="checkbox"/>	-
2.1 Modeled fenestration meets or exceeds 2009 IECC requirements.	<input type="checkbox"/>	<input type="checkbox"/>	-

Pilot QA Checklist released in August

1. Comprehensive.
2. Clarifies which pieces of documentation should be collected (at minimum).
3. Separation of file review and field review tasks.

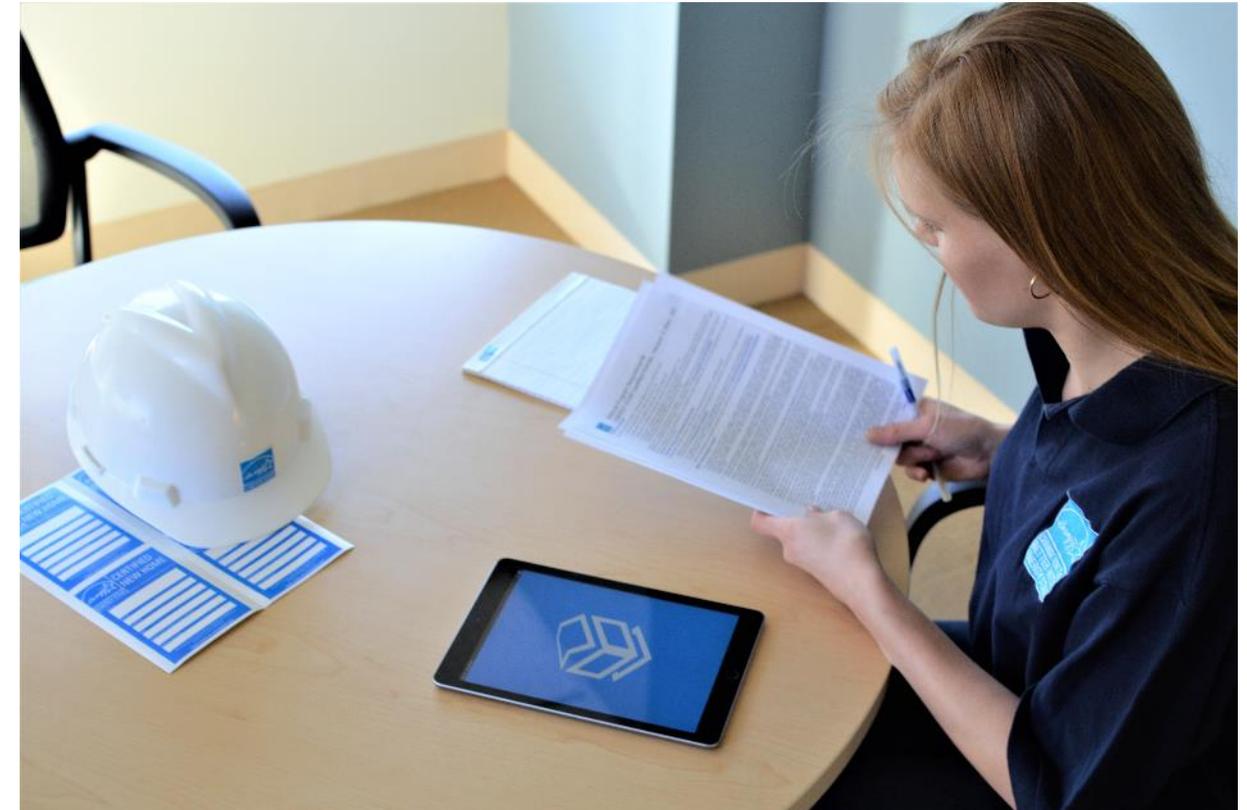


New QA Checklist

- Pilot released in August and available for optional use today at: https://www.energystar.gov/partner_resources/residential_new/certification_review
- Standard checklist will use new format starting with Revision 11.
- Implementation timeline:
 - Transitioning from calendar year (2018, 2019, etc.) to Revision schedule
 - QADs must use Rev. 11 QA Checklist on any Rev. 11-rated homes.
 - QA Checklist is backwards compatible and can be used immediately.

Home Certification Organization (HCOs)

- Comprehensive update began in 2018, and included several rounds of stakeholder feedback
- Changes reflect an expanded focus on the entire home certification process, rather than just verification oversight
- Eligibility expansion to allow for-profit applicants
- Increases consistency with ES Products and other EPA home labeling programs
- Final revised [HCO application](#) released in May 2020



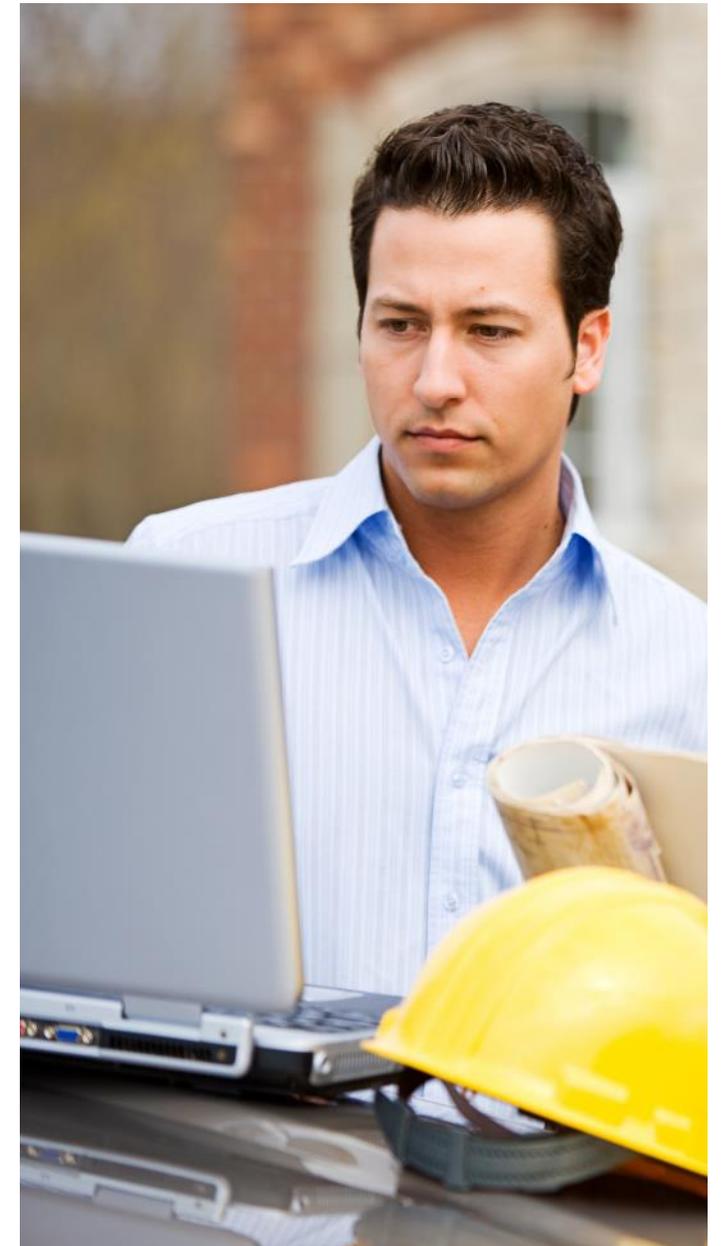
New Home Online Submittal Tools (HOST)

- New reporting process will use an application programming interface (API) to transmit specific data directly from the RESNET Registry
- Providers will perform data quality/matching to org names in ES database
- Reduces manual data entry and improves data quality
- Increases consistency with RESNET Registry
- Launches for Quarter 4, 2020 reporting season, opening in January 2021



New ENERGY STAR Subscription Center

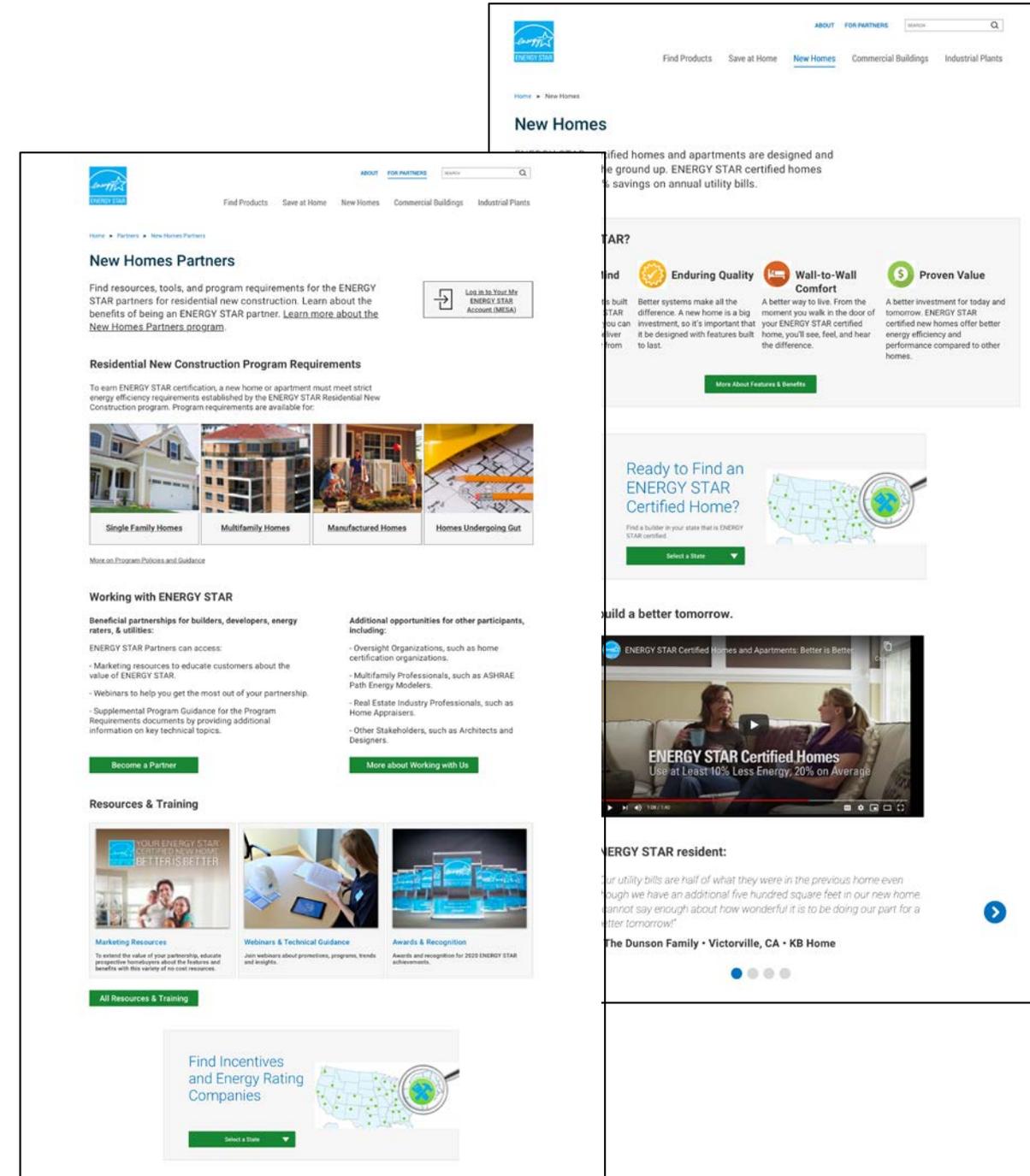
- New online tool for you to manage your ENERGY STAR mailing preferences
- The [Subscription Center](#) allows you to sign up for emails across all ENERGY STAR program areas
- Customize your mailings based on your specific interests, including single family, multifamily, and manufactured homes
 - Plus access to other ES program areas (windows, HVAC, smart thermostats, etc.)



Marketing/Messaging and Website Update

- Refreshed consumer messaging
- New consumer-focused tools, tactics, and creative
- Updated website UX

All coming in early 2021!



Welcome to the team,

Asa Foss

foss.asa@epa.gov



Upcoming Partner Meeting Webinar Series Sessions

- [ES Multifamily New Construction Revision 02](#) | Rebecca Hudson, EPA | Friday, October 30, 2020 at 1:00pm ET
- [HVAC Grading and Standard 310](#) | Dean Gamble, EPA | Thursday, November 5, 2020 at 1:00pm
- [Indoor airPLUS Version 2](#) | Nick Hurst, EPA | Tuesday, November 10, 2020 at 1:00pm ET
- [ES Certified Homes Revision 11](#) | Dean Gamble and Elliot Seibert, EPA | Thursday, November 12, 2020 at 1:00pm ET
- [ES Marketing Materials & Communications](#) | Marta Montoro, EPA | Tuesday, November 17, 2020 at 1:00pm ET
- [WaterSense Labeled Homes Version 2.0](#) | Jonah Schein, EPA | Thursday, November 19, 2020 at 1:00pm ET

Q&A