

Current ENERGY STAR Single-Family New Homes Policy Record

How to Use This Document

EPA regularly receives partner questions and comments regarding various aspects of the program documents. This document is a record of the issues that have been received since the release of the last revision to the program documents. These issues are either pending resolution by EPA or have been resolved, sometimes resulting in modifications that will be incorporated into the next revision of the program documents. The primary purpose of this document is to allow all partners to have equal access to the latest policy issues and resolutions.

EPA intends to formally incorporate policy modifications into the next revision of the program documents. Those edits will then be enforced for homes permitted after a specified transition period, typically 60 days from the release of the revised program requirements. Partners may, at their discretion, use the determinations in this document immediately, in advance of the formal implementation dates. If they do so, they should be sure to document the permit dates of the affected homes and to include a copy of the policy record in the files retained by the Home Energy Rater. Should the need arise, this will allow partners to demonstrate that they acted with the best information available.

Definitions

Each issue listed here is classified as a Change, Clarification, Refinement, Comment, or as an Issue Under Review. These are defined as follows:

- **Change** – The addition, deletion, or modification of a program requirement. A change will typically result from a partner question or feedback indicating that EPA's original intent is not being met or from changes in relevant standards (e.g., ENERGY STAR labeled product requirements, NAECA standards, IECC codes). A change is the most significant type of edit for partners because it is likely to change the way that partners comply with the program.
- **Clarification** – The clarification of a program requirement, typically resulting from a partner question indicating confusion or ambiguity. Clarifications are not intended to significantly change the scope of the program guidelines, but rather to clarify the original intent of the requirement. A clarification is secondary in importance to a change; it should not significantly alter the way that most partners comply with the program.
- **Refinement** – A minor revision, such as an improved choice of words, a grammatical correction, or a correction to a typographical error. A refinement is the least important type of edit; it should have no impact on the way that partners comply with the program.
- **Comment** – A comment provided by EPA in response to a question, which results in no change to the program documents. This may occur, for example, if the question can be answered by referring to already established policy. Aside from the partner asking the question, such comments will typically have no impact on the way that partners comply with the program.
- **Issue Under Review** – An issue that has been submitted and that EPA is still evaluating. Once EPA has evaluated the issue, it will offer a resolution and reclassify the issue using one of the four categories above.

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ID	Log Date	Program Document	Classification	Topic
01020	11/11/2020	All National and Regional Program Requirements (Rev. 10)	Refinement	The term “Path” in reference to HVAC Grading and HVAC Credential options replaced with “Track”
				Issue: Confusion has arisen around the term “Path” in reference to the HVAC Grading and HVAC Credential options (e.g., “Path A - HVAC Grading” and “Path B - HVAC Credential”). This is because the Multifamily New Construction program also uses the term “Path”, but in a different context - to describe the options for meeting that program’s performance target (i.e., Prescriptive Path, ERI Path, and ASHRAE Path).
				Resolution: To reduce confusion, all instances of the term “Path” in reference to the HVAC Grading and HVAC Credential options will be replaced with “Track” (e.g., “Path A” and “Path B” will be replaced with “Track A” and “Track B”, respectively), in all national and regional program documents.
01021	11/11/2020	All National and Regional Program Requirements (Rev. 10)	Refinement	Rename program to “ENERGY STAR Single-Family New Homes” program
				Issue: Currently, both single-family homes and many low-rise multifamily homes can be certified through the ENERGY STAR Certified Homes program. However, most multifamily homes permitted on or after July 1, 2021 will only be eligible to be certified through the ENERGY STAR Multifamily New Construction (MFNC) program. The ENERGY STAR Certified Homes program name should be updated to better reflect the home types that will be eligible to participate after this migration and to align with the structure of the MFNC program’s name.
				Resolution: To better reflect the revised eligibility of the ENERGY STAR Certified Homes program and align with the structure of the MFNC program name, all national and regional program documents, along with all supplemental program documents and webpages, will be updated by changing the program’s name to “ENERGY STAR Single-Family New Homes”.
00990	11/11/2020	All National and Regional Program Requirements (Rev. 10)	Refinement	Verification Oversight Organization (VOO) replaced with Home Certification Organization (HCO)
				Issue: In 2019, EPA undertook a comprehensive update of the oversight recognition structure, including changing terminology from Verification Oversight Organization (VOO) to Home Certification Organization (HCO).
				Resolution: To accurately reflect current terminology, the term “Verification Oversight Organization” or “VOO” will be removed from all program documents and replaced with “Home Certification Organization” or “HCO.” Additionally, to clarify the term the following Footnote will be added to the first instance of Home Certification Organization.

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				<p>“Home Certification Organizations (HCOs) are independent organizations recognized by EPA to implement an ENERGY STAR certification program for single-family and multifamily homes and apartments using an Energy Rating Index (ERI) compliance path. Learn more and find a current list of HCOs at www.energystar.gov/partner_resources/residential_new/working/other_participants/hco.”</p> <p>Due to California’s unique oversight structure, references to VOOs will be removed from the California regional program requirements but not replaced at this time. Future Revisions and / or Versions of the program will further clarify oversight requirements for California.</p> <p>Finally, in some instances of the term “VOO” the phrase “Such as RESNET” was used to give an example of a VOO. Because a link to a current list of HCOs is now provided, the phrase “such as RESNET” will be removed in all program documents.</p>
00991	11/11/2020	All National and Regional Program Requirements (Rev. 10)	Refinement	<p>Referencing ANSI / RESNET / ICC Std. 301 for definitions of generic terms “Rater” and “Provider”</p>
				<p>Issue: EPA previously clarified the intent of the generic terms “Rater” and “Provider” by adding the following footnotes to program documents:</p> <p>“The term ‘Rater’ refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, or an equivalent designation as determined by a VOO such as RESNET; and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/newhomestraining.”</p> <p>“The term ‘Provider’ refers to an Approved Rating Provider that is a designee of a VOO such as RESNET.”</p> <p>“Certified Rater”, “Approved Inspector”, and “Approved Rating Provider” are industry-standard terms defined within ANSI / RESNET / ICC Std. 301. However, an explicit reference to the standard was not included.</p>
				<p>Resolution: To clarify that the terms “Rater” and “Provider” are defined using industry-standard terms, the phrase “as defined by ANSI / RESNET / ICC Standard 301” will be added after “Certified Rater”, “Approved Inspector”, and “Approved Rating Provider.”</p>
01012	11/11/2020	All National and Regional Program Requirements and Mandatory Measures	Clarification	<p>Defining timeline for adopting ANSI / RESNET / ICC 301, ANSI / RESNET / ACCA 310, and ANSI / RESNET / ICC 380 updates in alignment with the HCO framework</p>
				<p>Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Std. 301, ANSI / RESNET / ACCA Std. 310, and ANSI / RESNET / ICC Std. 380 Addenda and Normative Appendices.</p>

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		Documents (Rev. 10)		<p>Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in these documents can be simplified by referencing the HCO framework.</p> <p>Resolution: In order to align with the HCO framework, Footnotes referring to the implementation of ANSI / RESNET / ICC Std. 301, ANSI / RESNET / ACCA Std. 310, and ANSI / RESNET / ICC Std. 380, will be updated as follows:</p> <ul style="list-style-type: none"> • “Path A – HVAC Grading shall not be used until an implementation schedule has been defined for ANSI / RESNET / ACCA Std. 310 by the Home Certification Organization (HCO) that the home is being certified under. Path A – HVAC Grading shall then use ANSI / RESNET / ACCA Std. 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under.” • “The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.” • “Ensure compliance with this requirement using ANSI / RESNET / ICC Std. 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.” • “Duct leakage shall be determined and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under.” <p>“The whole-house ventilation air flow and local exhaust air flows shall be determined and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under.”</p>
00968	11/11/2020	National Program Requirements (Version 3, Rev. 10)	Refinement	<p>Eligibility Requirements Section – Streamlined language regarding local code</p> <p>Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.</p>

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				<p>Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows: “Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”</p>
00984	11/11/2020	National Program Requirements (Version 3, Rev. 10)	Change	<p>Eligibility Requirements Section – Harmonizing eligibility requirements with MFNC</p>
				<p>Issue: All multifamily dwelling units other than two-family dwellings will be required to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction (MFNC) program for buildings permitted on or after July 1, 2021. Therefore, the Eligibility Requirements section and corresponding Footnotes need to be revised with the updated criteria for the ENERGY STAR Certified Homes program.</p>
				<p>Resolution: To reflect the revised eligibility of the ENERGY STAR Certified Homes program, the Eligibility Requirements section and corresponding Footnotes will be updated as follows: “The following site-built or modular ¹ homes are eligible to earn the ENERGY STAR:</p> <ul style="list-style-type: none"> • Dwellings ² (e.g., single-family homes, duplexes) • Townhouses ³ <p>Dwelling Units in certain low-rise multifamily buildings are also eligible to earn the ENERGY STAR through this program if permitted prior to July 1, 2021. See Footnote 4 for details. ⁴”</p> <p>The associated footnotes will be as follows:</p> <p>“2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.</p> <p>3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides. Townhouses are also eligible to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction Program.</p> <p>4. If permitted prior to July 1, 2021, the following are also eligible to earn the ENERGY STAR through the ENERGY STAR Single-Family New Homes program:</p> <ul style="list-style-type: none"> • Dwelling units in any multifamily building with 4 units or fewer; OR • Dwelling units in multifamily buildings with 3 stories or fewer above-grade; OR

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				<ul style="list-style-type: none"> Dwelling units in multifamily buildings with 4 or 5 stories above-grade where dwelling units occupy 80% or more of the occupiable square footage of the building. When evaluating mixed-use buildings for eligibility, exclude commercial / retail space when assessing whether the 80% threshold has been met. <p>Any above-grade story with 20% or more occupiable space, including commercial space, shall be counted towards the total number of stories for the purpose of determining eligibility to participate in the program. The definition of an 'above-grade story' is one for which more than half of the gross surface area of the exterior walls is above-grade. All below-grade stories, regardless of type, shall not be included when evaluating eligibility.</p> <p>Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.”</p> <p>Finally, the existing Footnotes 4 and 5 will be removed.</p>
00992	11/11/2020	National Program Requirements (Version 3, Rev. 10)	Refinement	Step 4 – Requirement to submit homes to an HCO and follow other oversight protocols
				<p>Issue: While Step 4 references the requirement to “register” homes, it does not explicitly mention the need to follow all oversight protocols of a Home Certification Organization (HCO). The appropriate reference to ensure all oversight protocols are followed is the ENERGY STAR Certification System, which establishes the certification policies and procedures required of an HCO.</p>
				<p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Step 4 will be updated with a reference to the ENERGY STAR Certification System and examples of applicable oversight protocols.</p> <p>To reflect these changes the second to last sentence in the first paragraph of Step 4 will be updated as follows:</p> <p style="padding-left: 40px;">“Finally, <u>submit the home to the HCO for final certification and follow the HCO’s certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting)</u> register the rated home with the same EPA-recognized VOO.”</p>
00994	11/11/2020	National Program Requirements (Version 3, Rev. 10)	Refinement	Step 4 – Updated references to ANSI / RESNET / ICC Standard 301
				<p>Issue: Step 4 of the ENERGY STAR Certification Process, currently references the “on-site inspection procedures for minimum rated features of an EPA-recognized VOO.” These procedures are now specified in appendix B of ANSI / RESNET / ICC Standard 301.</p>

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				<p>Resolution: To ensure consistency with industry standards, Step 4 will be updated to refer to ANSI / RESNET / ICC Standard 301. To reflect this change the first sentence of Step 4 will be updated as follows:</p> <p>“Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with the on-site inspection procedures for minimum rated features of an EPA-recognized VOO in ANSI / RESNET / ICC Standard 301, Appendix B.”</p>
00938	05/01/2020	National Program Requirements (Version 3, Rev. 10)	Comment	<p>Exhibit 4 – Continued Implementation of Version 3 in North Carolina</p>
				<p>Issue: Partners have questioned whether a Version 3.1 implementation date will be defined in response to the latest version of North Carolina’s residential building energy code. This code, with an enforcement date of 01/01/2019, incorporates the 2015 IECC with weakening amendments.</p>
				<p>Resolution: The new code was determined to be less stringent than the 2015 IECC, and an analysis determined that Version 3 still offers meaningful savings over the latest code. Because Version 3 continues to offer meaningful savings in North Carolina relative to the new residential building energy code, it will continue to be implemented. A new Version will not be implemented in North Carolina until another state-level code update occurs or until EPA defines a new nationwide Version.</p>
00939	05/01/2020	National Program Requirements (Version 3, Rev. 10)	Comment	<p>Exhibit 4 – Continued Implementation of Version 3 in Ohio</p>
				<p>Issue: Partners have questioned whether a Version 3.1 implementation date will be defined in response to the latest version of Ohio’s residential building energy code. This code, with an enforcement date of 07/01/2019, incorporates the 2018 IECC with weakening amendments.</p>
				<p>Resolution: The new code was determined to be less stringent than the 2018 IECC, and an analysis determined that Version 3 still offers meaningful savings over the latest code. Because Version 3 continues to offer meaningful savings in Ohio relative to the new residential building energy code, it will continue to be implemented. A new Version will not be implemented in Ohio until another state-level code update occurs or until EPA defines a new nationwide Version.</p>
00940	05/01/2020	National Program Requirements (Version 3, Rev. 10)	Comment	<p>Exhibit 4 – Continued Implementation of Version 3 in Indiana</p>
				<p>Issue: Partners have questioned whether a Version 3.1 implementation date will be defined in response to the latest version of Indiana’s residential building energy code. This code, with an enforcement date of 12/31/2019, incorporates the 2018 IRC with weakening amendments.</p>
				<p>Resolution: The new code was determined to be less stringent than the 2018 IRC, and an analysis determined that Version 3 still offers meaningful savings over the latest code. Because</p>

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				Version 3 continues to offer meaningful savings in Indiana relative to the new residential building energy code, it will continue to be implemented. A new Version will not be implemented in Indiana until another state-level code update occurs or until EPA defines a new nationwide Version.
00942	05/01/2020	National Program Requirements (Version 3, Rev. 10)	Change	Exhibit 4 – Implementation of Version 3.1 in Pennsylvania
				Issue: Pennsylvania has recently adopted a more efficient residential energy code. As a result, once the new codes are fully implemented, Version 3 of the National Program Requirements will no longer provide meaningful savings relative to code-compliant noncertified homes in this state.
				Resolution: To continue to provide meaningful savings relative to non-certified homes in states that have adopted more rigorous codes, a Version 3.1 implementation date has been defined for Pennsylvania. To reflect this change, Exhibit 4 will be modified as follows:

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				State / Territory	Homes Permitted ¹⁵ On or After This Date Must Meet the Adjacent Version & Revision	Version	Revision ¹⁶
				AL, AK, AZ, AR, CO, GA, IN, ID, KS, KY, LA, ME, MS, MO, NE, NH, NM, NC, ND, OH, OK, PA, SC, SD, TN, UT, VA, WV, WI, WY	07-01-2016	National v3	Rev. 08
					01-01-2019	National v3	Rev. 09
					10-01-2020	National v3	Rev. 10
				DC, DE, IA, IL, MA, MD, MN, MT, RI, VT	07-01-2016	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				NV	07-01-2016	National v3	Rev. 08
					10-01-2016	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				MI, NJ	07-01-2016	National v3	Rev. 08
					04-01-2017	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				CT, NY	07-01-2016	National v3	Rev. 08
					10-01-2017	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				TX	07-01-2016	National v3	Rev. 08
					07-01-2018	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				PA	07-01-2016	National v3	Rev. 08
					01-01-2019	National v3	Rev. 09
					10-01-2020	National v3	Rev. 10
					04-01-2021	National v3.1	Rev. 10
00948	05/01/2020	National Program Requirements (Version 3, Rev. 10)	Change	Exhibit 4 – Implementation of Version 3.1 in Nebraska			
				Issue: Nebraska has recently adopted a more efficient residential energy code. As a result, once the new codes are fully implemented, Version 3 of the National Program Requirements will no longer provide meaningful savings relative to code-compliant noncertified homes in this state.			

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Resolution: To continue to provide meaningful savings relative to non-certified homes in states that have adopted more rigorous codes, a Version 3.1 implementation date has been defined for Nebraska. To reflect this change, Exhibit 4 will be modified as follows:

State / Territory	Homes Permitted ¹⁵ On or After This Date Must Meet the Adjacent Version & Revision	Version	Revision ¹⁶
AL, AK, AZ, AR, CO, GA, IN, ID, KS, KY, LA, ME, MS, MO, NE, NH, NM, NC, ND, OH, OK, PA, SC, SD, TN, UT, VA, WV, WI, WY	07-01-2016	National v3	Rev. 08
	01-01-2019	National v3	Rev. 09
	10-01-2020	National v3	Rev. 10
DC, DE, IA, IL, MA, MD, MN, MT, RI, VT	07-01-2016	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
NV	07-01-2016	National v3	Rev. 08
	10-01-2016	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
MI, NJ	07-01-2016	National v3	Rev. 08
	04-01-2017	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
CT, NY	07-01-2016	National v3	Rev. 08
	10-01-2017	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
TX	07-01-2016	National v3	Rev. 08
	07-01-2018	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
NE	07-01-2016	National v3	Rev. 08
	01-01-2019	National v3	Rev. 09
	10-01-2020	National v3	Rev. 10
	07-01-2021	National v3.1	Rev. 10

00978	11/11/2020		Refinement	Exhibit 4 – Removal of states not using v3, as well as rows with old permit dates
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		National Program Requirements (Version 3, Rev. 10)		<p>Issue: The Exhibit includes states that are not currently following Version 3. This could confuse stakeholders who see these states and incorrectly assume that they are following Version 3 just because they are listed in the Exhibit.</p> <p>Additionally, this Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.</p> <p>Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted. In addition, to reduce potential confusion among stakeholders, all rows for states currently not following Version 3 of the program will be deleted from the Exhibit, with the exception of states transitioning from Version 3 to another version on or after 1/1/2019.</p>
00993	11/11/2020	National Program Requirements (Version 3, Rev. 10)	Refinement	<p>Footnote 11 – Sampling protocols and providers</p> <p>Issue: Partners identified that Footnote 11 refers to “sampling providers”, which is a term used by RESNET but not defined in an industry standard. It was also identified that Footnote 11 could be modified to more accurately reflect the ENERGY STAR Certification System, which establishes the specific eligibility criteria, policy requirements, and certification procedures required of a Home Certification Organization (HCO).</p> <p>Finally, it was identified that this footnote references California, which the National Program requirements are not applicable to, and therefore could cause confusion.</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Footnote 11 will be revised to use the term “sampling protocol” instead of “sampling provider.”</p> <p>Additionally, to reduce potential confusion, the language regarding California and “CEC-approved sampling protocol for homes in CA” will be deleted.</p> <p>To reflect these changed Footnote 11 will be updated as follows: “Raters who operate under an <u>HCO with a Sampling Protocol</u> Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated “Rater Verified” using an <u>HCO-VOO-approved <u>Sampling Protocol</u> sampling protocol for homes outside California, and the CEC-approved sampling protocol for homes in CA. No parties other than Raters are permitted to use sampling. All other items shall be verified for each certified home. For example, no items on the HVAC Commissioning Checklist are permitted to be verified using a <u>Ssampling Pprotocol</u>.”</u></p>
01026	11/11/2020	National Program Requirements (Version 3, Rev. 10)	Change	<p>Footnote 16 – Continued use of Rev. 08, 09, and 10 HVAC Design Report</p> <p>Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.</p>

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				<p>Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11.</p> <p>Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes.</p> <p>To reflect this change, Footnote 16 will be updated as follows: “Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”</p>
00969	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Refinement	<p>Eligibility Requirements Section – Streamlined language regarding local code</p>
				<p>Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.</p>
				<p>Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows: “Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”</p>
00985	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Change	<p>Eligibility Requirements Section – Harmonizing eligibility requirements with MFNC</p>
				<p>Issue: All multifamily dwelling units other than two-family dwellings will be required to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction (MFNC) program for buildings permitted on or after July 1, 2021. Therefore, the Eligibility Requirements section and corresponding Footnotes need to be revised with the updated criteria for the ENERGY STAR Certified Homes program.</p>
				<p>Resolution: To reflect the revised eligibility of the ENERGY STAR Certified Homes program, the Eligibility Requirements section and corresponding Footnotes will be updated as follows: “The following site-built or modular ¹ homes are eligible to earn the ENERGY STAR:</p> <ul style="list-style-type: none"> • Dwellings ² (e.g., single-family homes, duplexes) • Townhouses ³ <p>Dwelling Units in certain low-rise multifamily buildings are also eligible to earn the ENERGY STAR through this program if permitted prior to July 1, 2021. See Footnote 4 for details. ⁴</p> <p>The associated footnotes will be as follows: “2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased,</p>

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				<p>let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.</p> <p>3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides. Townhouses are also eligible to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction Program.</p> <p>4. If permitted prior to July 1, 2021, the following are also eligible to earn the ENERGY STAR through the ENERGY STAR Single-Family New Homes program:</p> <ul style="list-style-type: none"> • Dwelling units in any multifamily building with 4 units or fewer; OR • Dwelling units in multifamily buildings with 3 stories or fewer above-grade; OR • Dwelling units in multifamily buildings with 4 or 5 stories above-grade where dwelling units occupy 80% or more of the occupiable square footage of the building. When evaluating mixed-use buildings for eligibility, exclude commercial / retail space when assessing whether the 80% threshold has been met. <p>Any above-grade story with 20% or more occupiable space, including commercial space, shall be counted towards the total number of stories for the purpose of determining eligibility to participate in the program. The definition of an 'above-grade story' is one for which more than half of the gross surface area of the exterior walls is above-grade. All below-grade stories, regardless of type, shall not be included when evaluating eligibility.</p> <p>Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.”</p> <p>Finally, the existing Footnotes 4 and 5 will be removed.</p>
00995	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Refinement	Step 4 – Updated references to ANSI / RESNET / ICC Standard 301
				Issue: Step 4 of the ENERGY STAR Certification Process, currently references the “on-site inspection procedures for minimum rated features of an EPA-recognized VOO.” These procedures are now specified in appendix B of ANSI / RESNET / ICC Standard 301.
				Resolution: To ensure consistency with industry standards, Step 4 will be updated to refer to ANSI / RESNET / ICC Standard 301. To reflect this change the first sentence of Step 4 will be updated as follows:

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				<p>“Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with the on-site inspection procedures for minimum rated features of an EPA-recognized VOO in ANSI / RESNET / ICC Standard 301, Appendix B.”</p>
00996	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Refinement	<p>Step 4 – Requirement to submit homes to an HCO and follow other oversight protocols</p>
				<p>Issue: While Step 4 references the requirement to “register” homes, it does not explicitly mention the need to follow all oversight protocols of a Home Certification Organization (HCO). The appropriate reference to ensure all oversight protocols are followed is the ENERGY STAR Certification System, which establishes the certification policies and procedures required of an HCO.</p>
				<p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Step 4 will be updated with a reference to the ENERGY STAR Certification System and examples of applicable oversight protocols.</p> <p>To reflect these changes the second to last sentence in the first paragraph of Step 4 will be updated as follows:</p> <p>“Finally, <u>submit the home to the HCO for final certification and follow the HCO’s certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting) register the rated home with the same EPA-recognized VOO.</u>”</p>
00957	08/07/2020	National Program Requirements (Version 3.1, Rev. 10)	Comment	<p>Exhibit 3 – Continued Implementation of Version 3.1 in New Jersey</p>
				<p>Issue: Partners have questioned whether a new Version of the program requirements will be developed in response to the latest version of New Jersey’s residential building energy code. This code, with an enforcement date of 09/03/2019, incorporates the 2018 IECC with amendments that reduce its stringency.</p>
				<p>Resolution: The new code was determined to be somewhat less stringent than the 2018 IECC, and Version 3.1 was determined to offer meaningful savings over the 2018 IECC. Because Version 3.1 continues to offer meaningful savings over New Jersey’s new residential building energy code, it will continue to be implemented. A new version will not be implemented in New Jersey until another state-level code updates occurs or until EPA defines a new nationwide version.</p>
00958	08/07/2020	National Program Requirements (Version 3.1, Rev. 10)	Comment	<p>Exhibit 3 – Continued Implementation of Version 3.1 in New York</p>
				<p>Issue: Partners have questioned whether a new Version of the program requirements will be developed in response to the latest version of New York’s residential building energy code. This code, with an enforcement date of 05/12/2020, incorporates the 2018 IECC with no significant amendments that change stringency.</p>

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				<p>Resolution: The new code was determined to be equally or very slightly less stringent than the 2018 IECC, and Version 3.1 was determined to offer meaningful savings over the 2018 IECC. Because Version 3.1 continues to offer meaningful savings over New York's new residential building energy code, it will continue to be implemented. A new version will not be implemented in New York until another state-level code updates occurs or until EPA defines a new nationwide version.</p>
00935	05/01/2020	National Program Requirements (Version 3.1, Rev. 10)	Change	<p>Exhibit 3 – Implementation of Version 3.1 in Nebraska</p>
				<p>Issue: Nebraska has recently adopted a more efficient residential energy code. As a result, once the new codes are fully implemented, Version 3 of the National Program Requirements will no longer provide meaningful savings relative to code-compliant noncertified homes in this state.</p>
				<p>Resolution: To continue to provide meaningful savings relative to non-certified homes in states that have adopted more rigorous codes, a Version 3.1 implementation date has been defined for Nebraska. To reflect this change, Exhibit 3 will be modified as follows:</p>

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				State / Territory	Homes Permitted ¹⁴ On or After This Date Must Meet the Adjacent Version & Revision	Version	Revision ¹⁵
				AL, AK, AZ, AR, CO, GA, IN, ID, KS, KY, LA, ME, MS, MO, NE, NH, NM, NC, ND, OH, OK, PA, SC, SD, TN, UT, VA, WV, WI, WY	07-01-2016	National v3	Rev. 08
					01-01-2019	National v3	Rev. 09
					10-01-2020	National v3	Rev. 10
				DC, DE, IA, IL, MA, MD, MN, MT, RI, VT	07-01-2016	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				NV	07-01-2016	National v3	Rev. 08
					10-01-2016	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				MI, NJ	07-01-2016	National v3	Rev. 08
					04-01-2017	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				CT, NY	07-01-2016	National v3	Rev. 08
					10-01-2017	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				TX	07-01-2016	National v3	Rev. 08
					07-01-2018	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					10-01-2020	National v3.1	Rev. 10
				WA	07-01-2016	National v3.1	Rev. 08
					07-01-2018	Oregon and Washington v3.2	Rev. 08
					01-01-2019	Oregon and Washington v3.2	Rev. 09
					10-01-2020	Oregon and Washington v3.2	Rev. 10
				OR	07-01-2016	National v3.1	Rev. 08
					01-01-2019	National v3.1	Rev. 09
					04-01-2019	Oregon and Washington v3.2	Rev. 09
					10-01-2020	Oregon and Washington v3.2	Rev. 10
				NE	07-01-2016	National v3	Rev. 08
					01-01-2019	National v3	Rev. 09
					10-01-2020	National v3	Rev. 10
					07-01-2021	National v3.1	Rev. 10
00941	05/01/2020	National Program Requirements (Version 3.1, Rev. 10)	Change	Exhibit 3 – Implementation of Version 3.1 in Pennsylvania			
				Issue: Pennsylvania has recently adopted a more efficient residential energy code. As a result, once the new codes are fully implemented, Version 3 of the National Program Requirements will no longer provide meaningful savings relative to code-compliant noncertified homes in this state.			

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Resolution: To continue to provide meaningful savings relative to non-certified homes in states that have adopted more rigorous codes, a Version 3.1 implementation date has been defined for Pennsylvania. To reflect this change, Exhibit 3 will be modified as follows:

State / Territory	Homes Permitted ¹⁴ On or After This Date Must Meet the Adjacent Version & Revision	Version	Revision ¹⁵
AL, AK, AZ, AR, CO, GA, IN, ID, KS, KY, LA, ME, MS, MO, NE, NH, NM, NC, ND, OH, OK, PA, SC, SD, TN, UT, VA, WV, WI, WY	07-01-2016	National v3	Rev. 08
	01-01-2019	National v3	Rev. 09
	10-01-2020	National v3	Rev. 10
DC, DE, IA, IL, MA, MD, MN, MT, RI, VT	07-01-2016	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
NV	07-01-2016	National v3	Rev. 08
	10-01-2016	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
MI, NJ	07-01-2016	National v3	Rev. 08
	04-01-2017	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
CT, NY	07-01-2016	National v3	Rev. 08
	10-01-2017	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
TX	07-01-2016	National v3	Rev. 08
	07-01-2018	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	10-01-2020	National v3.1	Rev. 10
WA	07-01-2016	National v3.1	Rev. 08
	07-01-2018	Oregon and Washington v3.2	Rev. 08
	01-01-2019	Oregon and Washington v3.2	Rev. 09
	10-01-2020	Oregon and Washington v3.2	Rev. 10
OR	07-01-2016	National v3.1	Rev. 08
	01-01-2019	National v3.1	Rev. 09
	04-01-2019	Oregon and Washington v3.2	Rev. 09
	10-01-2020	Oregon and Washington v3.2	Rev. 10
PA	07-01-2016	National v3	Rev. 08
	01-01-2019	National v3	Rev. 09
	10-01-2020	National v3	Rev. 10
	04-01-2021	National v3.1	Rev. 10

00936	05/01/2020	National Program Requirements	Comment	Exhibit 3 – Continued implementation of Version 3.1 in Illinois
				Issue: Partners have questioned whether a new Version of the program requirements will be developed in response to the latest version of Illinois' residential building energy code. This

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		(Version 3.1, Rev. 10)		code, with an effective date of 07/01/2019, incorporates the 2018 IECC with several substantive amendments that reduce its stringency.
				Resolution: The new code was determined to be somewhat less stringent than the 2018 IECC and Version 3.1 was determined to offer meaningful savings over the 2018 IECC. Because Version 3.1 continues to offer meaningful savings in Illinois relative to the new residential building energy code, it will continue to be implemented. A new Version will not be implemented in Illinois until another state-level code update occurs or until EPA defines a new nationwide Version.
00979	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Refinement	Exhibit 3 – Removal of states not using v3.1, as well as rows with old permit dates
				Issue: The Exhibit includes states that are not currently following Version 3.1. This could confuse stakeholders who see these states and incorrectly assume that they are following Version 3.1 just because they are listed in the Exhibit. Additionally, this Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.
				Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted. In addition, to reduce potential confusion among stakeholders, all rows for states currently not following Version 3.1 of the program will be deleted from the Exhibit, with the exception of states transitioning to or from Version 3.1 on or after 1/1/2019.
00997	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Refinement	Footnote 10 – Sampling protocols and providers
				Issue: Partners identified that Footnote 10 refers to “sampling providers”, which is a term used by RESNET but not defined in an industry standard. It was also identified that Footnote 10 could be modified to more accurately reflect the ENERGY STAR Certification System, which establishes the specific eligibility criteria, policy requirements, and certification procedures required of a Home Certification Organization (HCO). Finally, it was identified that this footnote references California, which the National Program requirements are not applicable to, and therefore could cause confusion.
				Resolution: To ensure consistency with the ENERGY STAR Certification System, Footnote 10 will be revised to use the term “sampling protocol” instead of “sampling provider.” Additionally, to reduce potential confusion, the language regarding California and “CEC-approved sampling protocol for homes in CA” will be deleted. To reflect these changed Footnote 10 will be updated as follows: “Raters who operate under an HCO with a Sampling Protocol Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated “Rater Verified” using an HCO VOO -approved Sampling

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				<p>Protocol sampling protocol for homes outside California, and the CEC approved sampling protocol for homes in CA. No parties other than Raters are permitted to use sampling. All other items shall be verified for each certified home. For example, no items on the HVAC Commissioning Checklist are permitted to be verified using a Ssampling Pprotocol.</p>
01027	11/11/2020	National Program Requirements (Version 3.1, Rev. 10)	Change	<p>Footnote 14 – Continued use of Rev. 08, 09, and 10 HVAC Design Report</p>
				<p>Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.</p>
				<p>Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11.</p> <p>Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes.</p> <p>To reflect this change, Footnote 14 will be updated as follows: “Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”</p>
00111	01/15/2012	Thermal Enclosure System Rater Checklist (Version 3, Rev. 04)	Issue Under Review	<p>Item 2.2 & Item 4.4.1 – Reflective insulation</p>
				<p>Issue: Partners have asked for permission to use radiant barrier house wrap as reflective insulation for the purpose of fulfilling Items 2.2 and 4.4.1. Policy Record Entry 00024 did not allow this practice because the R-values for reflective insulation products rely on air spaces that are not integral to the products and because the ICC Evaluation Service typically classifies such products as weather barriers rather than as insulation products. In response to this guidance, partners have asked EPA to reevaluate the acceptability of reflective insulation products on the grounds that they reduce heat transfer when installed properly, they are treated as insulation products under the Federal Trade Commission 16 CFR Part 460 – Labeling and Advertising of Home Insulation, and there are applicable standards that govern their specification and installation (ASTM C727 and ASTM C1224).</p>
				<p>Resolution: [Issue under review.]</p>
01023	11/11/2020	National Rater Field Checklist	Clarification	<p>Sections 1-4 – Thermal enclosure system requirements are recommended, but not required, for garages with heating or cooling systems</p>

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		(Version 3 / 3.1, Rev. 10)		<p>Issue: Partners have asked whether garages with heating or cooling systems are required to meet the thermal enclosure system requirements contained in these sections. These requirements generally apply to assemblies separating conditioned from unconditioned space, but the terms “conditioned space” and “unconditioned space” are not defined.</p> <p>Furthermore, ANSI / RESNET / ICC 301’s definition of Conditioned Space Volume explicitly excludes garages, even ones that have a heating or cooling system, under the assumption that the garage will be conditioned on occasion, not year-round.</p> <p>Resolution: Given the ambiguity of the program requirements, the general practice of not increasing the stringency of the program through revisions, and the fact that ANSI / RESNET / ICC 301’s definition of Conditioned Space Volume excludes garages, the requirements contained in these Sections are recommended, but not required, to be applied to garages with a heating or cooling system.</p> <p>While not strictly required, improving the thermal enclosure system of a garage with a space-conditioning system will improve its comfort and reduce the energy required to maintain its setpoint during times that it is conditioned; hence the recommendation.</p>
00965	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 1.3 – Attic radiant barriers and IRCC’s are recommended to achieve Grade I installation; reflective insulation is required to achieve Grade I installation</p> <p>Issue: Partners have asked whether attic radiant barriers and Interior Attic Radiation Control Coatings (IRCC’s) are required, or only recommended, to achieve Grade I installation. Attic radiant barriers and IRCC’s don’t reduce heat conduction like thermal insulation materials, and do not have an associated R-value.</p> <p>Note that this class of products is distinct from reflective insulation. While similar materials are used in reflective insulation, reflective insulation can claim an R-value for an adjacent airspace that is totally enclosed and unventilated.</p> <p>Resolution: The intent of this item is to require insulation to achieve Grade I installation. Because attic radiant barriers and IRCC’s are not insulating products, EPA recommends but does not require that they achieve Grade I installation.</p> <p>In contrast, reflective insulation is an insulating product and is required to achieve Grade I.</p>
00949	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Change	<p>Item 3.2 – Narrow exemption from slab insulation for certain unconditioned spaces</p> <p>Issue: Partners have presented EPA with various specific details that have presented challenges regarding the requirement in Climate Zone 4 and higher to insulate 100% of the slab edge when the slab is on grade, for which EPA has already provided exemptions. A Partner has recently asked for an exemption for a new detail.</p>

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				<p>This Item generally requires that where an insulated wall separates an unconditioned space from the conditioned space of the house, slab insulation be installed at this interface to provide a thermal break between the conditioned and unconditioned slab.</p> <p>The detail in question involves a conditioned space such as a dwelling unit that has an adjacent occupiable space that is not itself conditioned space (i.e., an unconditioned corridor) but is within the thermal enclosure of the building, and the thermal enclosure is comparable to the rest of the building.</p> <p>Because the above-grade walls separating the dwelling units from the occupiable space are insulated, slab insulation would normally be required at this interface. However, due to the details of this project, a relatively small temperature gradient is expected between the corridor and the dwelling units. Therefore, a thermal break at this interface would provide limited benefit compared to the additional effort and cost.</p> <p>Resolution: A new narrow exemption will be added to the Slab Edge Insulation Exemption Details document as follows:</p> <p>“Exempted Slab Edge Detail 4: Slabs that Separate Occupiable Space Within the Thermal Enclosure from Adjacent Conditioned Spaces</p> <p>Per Figures 4 & 5 [shown in the Slab Edge Insulation Exemption Details document], where a slab extends from conditioned space (e.g., a dwelling unit) to an adjacent occupiable space that is not conditioned space (e.g., an unconditioned corridor), insulation is not required to be provided at this boundary under the following conditions:</p> <ol style="list-style-type: none"> 1. The adjacent occupiable space is entirely within the thermal enclosure of the building, and, 2. The assemblies separating the occupiable space from either the outdoors or not-occupiable space meet both of the following: <ol style="list-style-type: none"> a. Except in California, the assemblies must meet the “Envelope, Windows, and Doors” requirements listed in the ENERGY STAR Reference Design Exhibit of the applicable national or regional program requirements (i.e., insulation levels; Grade I insulation; infiltration; windows; and doors). For the ENERGY STAR Multifamily New Construction program, the requirements are modified by bullets 2 and 3 in the Common Space Applicability Notes and must be followed, as well. <p>In California, for the ENERGY STAR Single-Family New Homes program, which does not have an ENERGY STAR Reference Design, these attributes must be equal or better than the predominant performance values of the dwelling units. For the ENERGY STAR Multifamily New Construction program,</p>
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				<p>the assemblies must meet or exceed the “Envelope & Windows” requirements listed in Exhibit 1 of the California Program Requirements.</p> <p>b. The assemblies must meet Sections 1-4 of the ENERGY STAR National Rater Field Checklist, focusing on high-performance fenestration & insulation, fully-aligned air barriers, reduced thermal bridging, and air sealing.</p> <p>Per ASHRAE 62.2-2010, the term “occupiable space” is defined as any enclosed space inside the pressure boundary and intended for human activities, including, but not limited to, all habitable spaces, toilets, closets, halls, storage and utility areas, and laundry areas. Garages are generally not occupiable space, per this definition, and shall not be counted as such for the purpose of this exemption.</p> <p>This exemption is provided because the occupiable space is within the building’s thermal enclosure. Therefore, a relatively small temperature gradient is expected between the occupiable and conditioned space, and a thermal break at this interface would provide limited benefit compared to the additional effort and cost.</p> <p>Note that this policy does not apply to a slab that extends from conditioned space to an adjacent space that is not occupiable. For example, at the interface between a conditioned dwelling unit and a garage (which is not an occupiable space), both the assembly and the slab edge must be insulated.”</p>
00962	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 3.4.1 – Allowance of interior continuous rigid insulation</p> <p>Issue: A partner has asked whether interior continuous rigid insulation could be used to meet the Item. While continuous rigid insulation is listed as an option, it is ambiguous whether the insulation must be placed on the exterior of the wall or if either location is acceptable.</p> <p>The ENERGY STAR Multifamily New Construction program allows interior continuous rigid insulation only for gut rehabilitation projects. For such buildings, the use of interior insulation will likely result in an inferior thermal enclosure system due to thermal bridging at the above-grade floors (e.g., a concrete floor between stories).</p> <p>However, for the ENERGY STAR Certified Homes program, it may be worth extending this permission to any home, because slabs on-grade are separately required to be insulated and the occurrence of above-grade slabs is rare (i.e., most above-grade floors are wood-framed and insulated on the interior side). Therefore, the use of interior continuous rigid insulation will produce a roughly comparable thermal enclosure system as exterior continuous insulation in single-family homes, duplexes, and townhomes.</p> <p>Resolution: Because both interior and exterior continuous rigid insulation will produce a roughly comparable thermal enclosure system in single-family homes, duplexes, and townhomes, interior continuous rigid insulation will be allowed to meet Item 3.4.1 of the National Rater-F. However, it should be noted that Item 4.3 of the National Water Management System</p>

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				<p>Builder Requirements does not allow Class I vapor retarders to be installed on the interior side of air permeable insulation in above-grade walls. This requirement may limit the type of interior continuous rigid insulation that could be used.</p> <p>Because the use of interior continuous rigid insulation is relatively uncommon, no changes will be made directly to the program document.</p>
00963	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 3.4.1 – Closed-cell spray foam considered rigid insulation</p>
				<p>Issue: Partners have asked if closed-cell spray polyurethane foam (CCSPF) could be used as continuous rigid insulation to meet reduced thermal bridging requirements.</p>
				<p>Resolution: Once cured, CCSPF is considered rigid insulation. Therefore, it is permitted to be used to as continuous rigid insulation to meet reduced thermal bridging requirements, provided that it is continuous across all structural members without thermal bridges other than fasteners and service openings.</p>
01044	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Section 5 – Align footnote with scope of ANSI / RESNET / ACCA Std. 310</p>
				<p>Issue: The intent of the final sentence of Footnote 32, which is referenced by the header of Section 5, is to clarify that if Path A is used, all systems eligible to be evaluated under ANSI / RESNET / ACCA Std. 310 must meet the checklist requirements. However, the sentence omits furnaces up to 125 kBtuh, which are within the scope of the standard and are intended to be evaluated under Path A for the home to be certified.</p>
				<p>Resolution: To clarify the program’s intent that all systems within the scope of ANSI / RESNET / ACCA Std. 310 must meet Items 5a.1 through 5a.3 when Path A is used, Footnote 32 will be revised to read as follows:</p> <p>“Path A – HVAC Grading shall not be used until an Effective Date has been defined by RESNET for ANSI / RESNET / ACCA Std. 310. Path A –HVAC Grading shall then use ANSI / RESNET / ACCA Std. 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the Effective Date and Transition Period End Date defined by RESNET. RESNET interpretations of Standard 310 shall also be followed. For Path A, all unitary HVAC Systems including air conditioners and heat pumps up to 65 kBtuh <u>and furnaces up to 125 kBtuh</u> shall comply with 5a.1 through 5a.3 for the home to be certified.”</p>
01036	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Refinement	<p>Item 5a.1 – Addition of “N/A” checkbox for homes with no forced-air HVAC systems</p>
				<p>Issue: Item 5a.1 requires verification of blower fan volumetric airflow per ANSI / RESNET / ACCA Standard 310. However, partners have noted that there are some dwelling units without a forced-air HVAC system (e.g., a home with radiant floors and no AC), for which this requirement would not be applicable.</p>

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				<p>Resolution: To accommodate homes with HVAC systems for which blower fan volumetric airflow tests in ANSI / RESNET / ACCA Standard 310 do not apply, Item 5a.1 will be revised to include an “N/A” checkbox. This checkbox should be used when the home being certified does not contain any forced-air HVAC systems.</p>
01022	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>HVAC System header, Items 5b.1, 7.1, 7.5, 7.7 – Removal of references to specific item #'s on the National HVAC Design Report</p>
				<p>Issue: With the completion of ANSI / RESNET / ACCA Standard 310, ENERGY STAR now offers two HVAC grading paths: Path A and Path B. However, the National Rater Field Checklist currently includes several references, in parenthesis, to specific item numbers on the National HVAC Design Report, which are only applicable to homes pursuing Path B.</p>
				<p>Resolution: Due to space constraints, it would be challenging to includes references to the specific applicable item numbers for both Path A and Path B, which encompass the National HVAC Design Report, the ANSI / RESNET / ACCA 310 HVAC Design Report, and the ENERGY STAR Supplement. Instead, the references that are only applicable to Path A will be removed, so as not to confuse partners who are pursuing Path B. Therefore, the header for “HVAC System” above Section 5 will be updated as follows: “HVAC System (National HVAC Design Report Item # in parenthesis)” Additionally, the following Items will be updated as follows:</p> <ul style="list-style-type: none"> Item 5b.1: “National HVAC Design Report (4.3, 4.4, & 4.17)” Item 7.1: “Rater-measured ventilation rate is within either ± 15 CFM or ±15% of design <u>report value</u> (2.3).” Item 7.5: “If system utilizes the HVAC fan, then the specified fan type is ECM / ICM (4.7), or the controls will reduce the standalone ventilation run-time by accounting for hours when the HVAC system is heating or cooling.” Item 7.7: “Air inlet location (Complete if ventilation air inlet location was specified <u>on design report</u> (2.12, 2.13); otherwise check “N/A”).”
00955	08/07/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 6.2 – Bedroom pressure testing for HVAC systems with multiple zones</p>
				<p>Issue: A partner has asked whether bedroom pressure testing for an HVAC system with multiple zones should be conducted with all zones on simultaneously, or for each zone individually. It is difficult to predict which condition would produce higher pressure differentials, and it may be unnecessarily burdensome to require testing each zone individually without a clear benefit.</p>
				<p>Resolution: To improve the consistency and simplicity of the program requirements, when bedroom pressure testing an HVAC system with multiple zones, Raters are only required to test</p>

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				<p>all zones simultaneously and are not required to test each zone individually. Footnote 37, referenced by this Item, will be updated as follows:</p> <p>“Item 6.2 does not apply to ventilation ducts, exhaust ducts, or non-ducted systems. For an HVAC system with a multi-speed fan, the highest design fan speed shall be used when verifying this requirement. <u>For an HVAC system with multiple zones, this requirement shall be verified with all zones calling for heating or cooling simultaneously; additional testing of individual zones is not required.</u> When verifying this requirement, doors separating bedrooms from the main body of the house (e.g., a door between a bedroom and a hallway) shall be closed and doors to rooms that can only be entered from the bedroom (e.g., a closet, a bathroom) shall be open. As an alternative to the ± 3 Pa limit, a Rater-measured pressure differential ≥ -5 Pa and $\leq +5$ Pa is permitted to be used for bedrooms with a design airflow ≥ 150 CFM. The Rater-measured pressure shall be rounded to the nearest whole number to assess compliance.”</p>
00933	05/01/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 6.2 – Bedrooms without doors exempted from bedroom pressure-balancing test</p> <p>Issue: Partners have asked for clarification on Item 6.2, which in part defines the requirements for bedroom pressure-balanced testing, in the instance that no door has been installed between the bedroom and the main body of the house. In the absence of a door, the test would provide little to no value because there would be no pressure differential.</p> <p>Resolution: Compliance with this Item can be assumed without the need for a Rater-measured pressure differential when there is no door separating the bedroom from the main body of the house and it is apparent to the rater that there is no intention of a door being installed (e.g., no door hinge or latch mortise).</p>
00937	05/01/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 6.3 – Refer to ANSI / RESNET / ICC Std. 301 for intent of unconditioned space</p> <p>Issue: A partner has asked for clarification of the intent of the term “unconditioned space” within this Item. This term is not defined within the program documents and its intent is relevant because ducts within “unconditioned space” are required to be insulated. Specifically, the partner has asked whether an unvented attic would be considered “unconditioned space”.</p> <p>Resolution: To clarify the program’s intent, ducts are considered to be in “unconditioned space” if they meet the definition of Unconditioned Space Volume within ANSI / RESNET / ICC Std. 301-2019.</p>
01042	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Change	<p>Item 6.4 & 6.5 – Ventilation ducts connected to heating or cooling system must be tested for leakage; other ducts not subject to leakage tests must be inspected</p> <p>Issue: These Items generally require testing of duct leakage for heating, cooling, and balanced ventilation ducts. One of the referenced Footnotes exempts balanced ventilation ducts from</p>

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				<p>testing if they're not connected to the space heating or cooling system, but instead requires a visual inspection.</p> <p>Partners have asked how these requirements apply to ducts of other dwelling unit mechanical ventilation system types (e.g., supply ventilation systems).</p> <p>Resolution: While not stated in the Footnote, it was the intent of the program to require testing of any ventilation duct connected to the heating and cooling system serving the dwelling unit. Furthermore, the intent was to require visual inspection for any duct system exempted from testing. This intent will be clarified in Footnote 39, as follows:</p> <p>"Items 6.4 and 6.5 generally apply to the ducts of space heating, space cooling, and dwelling unit mechanical ventilation systems.</p> <p>However, visual inspection is permitted in lieu of testing for a dwelling unit mechanical ventilation system not connected to the space heating or space cooling system, regardless of the number of dwelling units it serves. In such cases, a Rater shall visually verify that all seams and connections are sealed with mastic or metal tape and all duct boots are sealed to floor, wall, or ceiling using caulk, foam, or mastic tape.</p> <p>For duct systems requiring testing, duct leakage shall be determined and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the Effective Date and Transition Period End Date defined by RESNET. RESNET interpretations of Standard 380 shall also be followed. Leakage limits shall be assessed on a per-system, rather than per-home, basis."</p>
01049	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Refinement	<p>Section 7 – Ventilation terminology aligned with ANSI / RESNET / ICC 301-2019</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Currently, this Section header uses the term "Whole-House Mechanical Ventilation System". In contrast, ANSI / RESNET / ICC 301-2019 uses the defined term, "Dwelling Unit Mechanical Ventilation System". Furthermore, this section applies to not just ventilation systems, but also to inlets connected to a ducted return of the HVAC system, regardless of intent. This could be emphasized within the header.</p> <p>Similarly, there are other uses of the term "whole-house ventilation" within the document that could be updated for the same reason.</p> <p>Resolution: To improve clarity and conciseness of the program requirements, the Section header will be revised to read: "Dwelling Unit Mechanical Ventilation Systems ("Vent System") & Inlets in Return Duct".</p> <p>With this change, any instance of the term "whole-house ventilation" will be updated to use the same terminology as the revised header, either dwelling unit mechanical ventilation system or vent system.</p>

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				<p>In addition, a Footnote will be added with the definition of this term from ANSI / RESNET / ICC 301-2019, as follows:</p> <p>“As defined by ANSI / RESNET / ICC Std. 301-2019, a Dwelling Unit Mechanical Ventilation System is a ventilation system consisting of powered ventilation equipment such as motor-driven fans and blowers and related mechanical components such as ducts, inlets, dampers, filters and associated control devices that provides dwelling-unit ventilation at a known or measured airflow rate.”</p> <p>A second Footnote will be added to the header to emphasize that Item 7.3 applies to all inlets connected to a ducted return, as follows:</p> <p>“Item 7.3 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return.”</p>
01050	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Refinement	<p>Item 7.2 – Improved example of ventilation control that must be labeled</p>
				<p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. This Item requires that ventilation override controls be labeled if their function is not obvious. One example of a control that must be labeled is provided in the Item: “a standalone wall switch”. This example could be more clearly stated as “a toggle wall switch”.</p>
				<p>Resolution: To improve clarity of the program requirements, Item 7.2 will be revised, as follows:</p> <p>“A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that’s on the ventilation equipment).”</p>
01051	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Change	<p>Item 7.3 – Enhanced requirements for ventilation inlets on return-side of HVAC system</p>
				<p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Currently, Item 7.3 requires in part that an outdoor air inlet connected to the return-side of the HVAC system be restricted when the system is “not in use”. The intent of this requirement is to restrict outdoor air when the ventilation system is in an off-cycle (which would not be applicable to continuous systems), and, if an occupant override has occurred.</p> <p>Furthermore, the intent is for a motorized damper to be used to restrict this airflow. This Item currently lists a motorized damper as one example of a compliant strategy, but in fact it is the only strategy that has been identified to date. As currently written, partners may mistakenly believe that other damper types, such a barometric damper, would also meet this intent.</p>

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			<p>However, this would be incorrect because a barometric damper could be pulled open even when ventilation was not desired, simply from the pressure of the HVAC fan.</p> <p>In short, the intent of this Item could be clearer. Furthermore, partners have observed that air inlets on the return-side might be used as a dedicated source of air for an exhaust ventilation system (e.g., bath exhaust fan paired with a return-side inlet). This would be acceptable if the inlet could: a) automatically restrict airflow during ventilation off-cycles and occupant overrides, and; b) not bring in significantly more outdoor air than is being exhausted, which could happen because the inlet is closer to the powerful HVAC fan than the bath fan.</p> <p>Resolution: To improve clarity and expand the scope of this Item, it will be rewritten to capture these two requirements for return-side ventilation air inlets:</p> <ol style="list-style-type: none"> 1. Restrict airflow using a motorized damper during vent. off-cycle and occupant override. 2. Verify that the ventilation rate is ≤ 15 CFM or 15% above the design value at the highest HVAC fan speed. <p>Regarding the second requirement, the Rater will have already satisfied this if the inlet is part of the ventilation system verified in Item 7.1 (e.g., an inline fan connected to the return-side of the HVAC system). If not previously measured, this new requirement will ensure that the HVAC fan does not draw in significantly more outdoor air than the ventilation design.</p> <p>With that said, as an alternative to measuring the airflow for this situation, a Constant Airflow Regulating (CAR) damper will be permitted to be used. CAR dampers are designed to limit the airflow going through them to a known rate, up to a relatively high static pressure such as 0.8 IWC. Therefore, installing such a damper would ensure that the program's intent is met even without a measurement of the airflow.</p> <p>To reflect these changes, Item 7.3 will be revised as follows:</p> <p>"7.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check "N/A"):</p> <p>7.3.1 Controls automatically restrict airflow using a motorized damper during vent. off-cycle and occupant override.</p> <p>7.3.2 Rater-measured vent. rate is ≤ 15 CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 50."</p> <p>To emphasize that Item 7.3 applies to all inlets connected to a ducted return, a new Footnote will be added, as follows:</p> <p>"Item 7.3 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return."</p>
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				<p>To provide examples of when the airflow must be restricted on the return-side outdoor air inlet, a new Footnote will be added to these items as follows:</p> <p>“For example, if an outdoor air inlet connected to a ducted return is used as a dedicated source of outdoor air for an exhaust ventilation system (e.g., bath fan), the outdoor airflow must be automatically restricted when the exhaust fan is not running and in the event of an override of the exhaust ventilation system.”</p> <p>To provide guidance on when and how to measure the airflow through the return-side outdoor inlet, and to add the alternative use of the CAR damper in lieu of measurement, a new Footnote will be added to these items as follows:</p> <p>“When assessing the ventilation rate, the highest HVAC fan speed applicable to ventilation mode shall be used (e.g., if the inlet only opens when the HVAC is in ‘fan-only’ mode, then test in this mode). If the inlet has a motorized damper that only opens when the local mechanical kitchen exhaust is turned on, then testing is not required.</p> <p>When required, the ventilation airflow through the inlet shall be measured and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under. As an alternative, measurement of the outdoor airflow can be waived if a Constant Airflow Regulating (CAR) damper with a manufacturer-specified maximum flow rate no higher than 15 CFM or 15% above the ventilation design value is installed on the inlet.”</p>
01052	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Change	<p>Item 7.5 – Allowance for continuous return-side systems; integration of HVAC fan operation limitations</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Item 7.3 currently requires, in part, that no outdoor air inlets be connected to the return-side of the HVAC system, unless controls are installed to operate intermittently. The intent of this requirement is to limit energy consumption by not allowing continuous operation of the HVAC fan.</p> <p>When this requirement was first drafted, the only common ventilation system utilizing an inlet to the return-side of the HVAC system was one that used the HVAC fan itself as the primary ventilation fan. Since that time, the use of ventilation systems that don’t use the HVAC fan as the primary ventilation fan have become more commonplace (e.g., ERV’s, HRV’s, and inline fans). These should be allowed to be connected to the return-side of the HVAC system, even if running continuously.</p> <p>Furthermore, some ventilation systems have the ability to control the HVAC fan even when the ventilation system has its own fan (e.g., an inline fan might turn on the HVAC fan for mixing). Even in these cases, the HVAC fan should not run continuously, to limit energy consumption.</p>

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				<p>Resolution: To allow continuously-operating ventilation systems that are connected to the return-side of the HVAC system to be used, the language in Item 7.3 regarding intermittent operation will be removed. Furthermore, to group all efficiency requirements related to the HVAC fan in one Item, to prohibit the ventilation system controller from continuously operating the HVAC fan (regardless of whether the HVAC fan is the primary ventilation fan), and to improve conciseness, Item 7.5 will be revised, as follows:</p> <p>“7.5. If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM (4.7) or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours.”</p> <p>In addition, to emphasize that the use of a the ‘fan-on’ setting of a thermostat is prohibited from being used as the ventilation controller (because it would operate the HVAC fan continuously), a new Footnote will be added to Item 7.5 as follows:</p> <p>“Note that the ‘fan-on’ setting of a thermostat would not be an acceptable controller because it would continuously operate the HVAC fan.”</p>
00945	05/01/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 8.1 – Kitchen exhaust not allowed to terminate in garage</p>
				<p>Issue: Partners have asked whether kitchen exhaust is allowed to terminate in a garage, rather than the “outdoors” as required in the heading for Section 8.</p>
				<p>Resolution: Kitchen exhaust is not allowed to terminate in a garage because garages are semi-enclosed spaces without the same airflow exchange rate as the outdoors. From a building science perspective, sending moisture and contaminants into a semi-enclosed space could potentially impact the durability of the materials in the garage and increase the risk of contaminant migration back into the house.</p>
01024	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Change	<p>Item 8.1 & Fn. 55 – Alternative kitchen exhaust rate for additional select homes</p>
				<p>Issue: Partners developing homes and buildings with extremely tight enclosures and balanced whole-dwelling ventilation and local mechanical exhaust systems have previously expressed difficulty meeting the program requirements for local mechanical kitchen exhaust, and an allowance has been provided to use a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3, if they are either a) PHIUS+ or PHI certified, or b) provide both dwelling-unit ventilation and local mechanical kitchen exhaust using a balanced system, and have a Rater-verified whole-building infiltration rate ≤ 0.05 CFM50 per sq. ft. of Enclosure Area, and a Rater-verified dwelling unit compartmentalization rate ≤ 0.30 CFM50 per sq. ft. of Enclosure Area if multiple dwelling units are present in the building.</p> <p>However, projects that pursue PHIUS+ or PHI certification but don’t achieve the required infiltration limit of those programs are no longer eligible to use the 25 CFM kitchen exhaust allowance, even though they are still exceptionally tight. Because the final infiltration level is</p>

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				<p>only known near project completion, it is not feasible at that point to change the kitchen exhaust strategy. As a result, projects are not permitted to be certified, despite meeting and likely exceeding all program requirements except for the allowance to use reduced kitchen exhaust.</p> <p>Resolution: The current allowance to use a continuous kitchen exhaust rate of 25 CFM will be extended to homes that meet an infiltration limit of ≤ 1.0 ACH50 and provide both whole-dwelling ventilation and local mechanical kitchen exhaust using a balanced system. To reflect this change, the second to last sentence of Footnote 55 will be revised as follows:</p> <p>“As an alternative to Item 8.1, homes are permitted to use a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3, if they are either a) PHIUS+ or PHI certified, or b) provide both dwelling-unit ventilation and local mechanical kitchen exhaust using a balanced system, and have a Rater-verified whole-building infiltration rate ≤ 1.0 ACH50 or ≤ 0.05 CFM50 per sq. ft. of Enclosure Area, and a Rater-verified dwelling unit compartmentalization rate ≤ 0.30 CFM50 per sq. ft. of Enclosure Area if multiple dwelling units are present in the building.”</p>
01034	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 9.1 – Expanded options for making a filter in the attic accessible</p>
				<p>Issue: Footnote 57, referenced by Item 9.1, defines options for making a filter located in the attic accessible. Several additional options have been identified that would meet the original intent, including the use of a pull-down ladder, a door, or a wall access panel (e.g., through a knee wall). Adding these options would provide partners with more flexibility to meet the requirement cost-effectively.</p>
				<p>Resolution: Several additional options for making filters located in the attic accessible will be added to the last sentence in Footnote 57, as follows:</p> <p>“HVAC filters located in the attic shall be considered accessible to the occupant if either 1) drop-down stairs, a pull-down ladder, or door provide access to attic and a permanently installed walkway has been provided between the attic access location and the filter or 2) the filter location enables arm-length access from a portable ladder without the need to step into the attic and the height of the ceiling access panel or the bottom of the wall access panel where access is provided is ≤ 12 ft.”</p>
00998	11/11/2020	National Rater Field Checklist (Version 3 / 3.1, Rev. 10)	Refinement	<p>Item 10.3 & Footnote 61 – Referencing industry standards for combustion safety testing</p>
				<p>Issue: Partners identified that Item 10.3 and Footnote 61 refer to both “Section 802 of RESNET’s Standards” (Mortgage Industry National Home Energy Rating System Standards) and ANSI/ACCA 12 QH-2014. Partners also noted that the Mortgage Industry National Home Energy Rating System Standards are a proprietary standard.</p>
				<p>Resolution: Through reviewing Section 802 and ANSI/ACCA 12 QH-2014, EPA determined that the requirements of Item 10.3 and Footnote 61 could be retained while only</p>

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				<p>referencing ANSI/ACCA 12 QH-2014. Therefore, to ensure consistency with industry standards, Item 10.3 and Footnote 61 will be revised as follows:</p> <p>“If unvented combustion appliances other than cooking ranges or ovens are located inside the home’s pressure boundary, the Rater has followed Section 802 of RESNET’s Standards, encompassing ANSI/ACCA 12 QH-2014, <u>Section 3.2.2</u>, Appendix A, Sections <u>A2.2.6</u>, <u>A3 (Carbon Monoxide Test)</u>, and <u>A4</u>, and verified the equipment meets the limits defined within.”</p> <p>“This item only applies to furnaces, boilers, and water heaters located within the home’s pressure boundary. Naturally drafted equipment is allowed within the home’s pressure boundary in Climate Zones 1-3 if the Rater has followed Section 802 of RESNET’s Standards, encompassing ANSI / ACCA 12 QH-2014, <u>Section 3.2.2</u>, Appendix A, Sections <u>A2.2.6</u>, <u>A3 (Carbon Monoxide Test)</u>, and <u>A4 (Depressurization Test for the combustion Appliance Zone)</u>, and verified that the equipment meets the limits defined within.”</p>
00946	05/01/2020	National HVAC Design Report (Version 3 / 3.1, Rev. 10)	Clarification	Minotair Pentacare is exempted system type
				Issue: A partner has asked whether the Minotair Pentacare is an exempted system type, in which case Sections 3-5 are recommended but not required to be completed. The Minotair Pentacare is a crossover device, similar to the CERV, that is an ERV with an integrated air-to-air heat pump.
				Resolution: For the purposes of this program, the Minotair Pentacare is considered a ventilation system and is therefore an exempted system type. Therefore, if a Minotair Pentacare system is installed in the home, and none of the applicable HVAC systems listed in Footnote 1 are installed in the home, then completion of Sections 3-5 of the HVAC Design Report are recommended, but not required.
00975	11/11/2020	National HVAC Design Report (Version 3 / 3.1, Rev. 10)	Refinement	Section 3, 4, & 5 – Addition of footnote clarifying Caribbean exemptions
				Issue: Homes certified through the Caribbean Program Requirements, Version 3, are exempt from several requirements within this document. The exemptions are listed in Exhibit 2 of the Caribbean Program Requirements, Version 3, but not in the National HVAC Design Report itself, which may lead Partners to overlook them.
				Resolution: To improve clarity, a new footnote will be added to Sections 3, 4, and 5 as follows: “Homes certified through the Caribbean Program Requirements, Version 3, are exempt from completing Sections 3, 4, and 5 of this report.”
01055	11/11/2020		Refinement	Section 2 – Ventilation terminology aligned with ANSI / RESNET / ICC 301-2019

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		National HVAC Design Report (Version 3 / 3.1, Rev. 10)		<p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Currently, this Section header uses the term “Whole-House Mechanical Ventilation”. In contrast, ANSI / RESNET / ICC 301-2019 uses the defined term, “Dwelling Unit Mechanical Ventilation System”. Furthermore, this section applies to not just ventilation systems, but also to inlets connected to a ducted return of the HVAC system, regardless of intent. This could be emphasized within the header.</p> <p>Similarly, there are other uses of the term “whole-house ventilation” within the document that could be updated for the same reason.</p> <p>Resolution: To improve clarity and conciseness of the program requirements, the Section header will be revised to read: “Dwelling Unit Mechanical Ventilation System Design (“Vent System”) & Inlets in Return Duct”.</p> <p>With this change, any instance of the term “whole-house ventilation” will be updated to use the same terminology as the revised header, either dwelling unit mechanical ventilation system or vent system.</p> <p>In addition, a Footnote will be added with the definition of this term from ANSI / RESNET / ICC 301-2019, as follows:</p> <p>“As defined by ANSI / RESNET / ICC Std. 301-2019, a Dwelling Unit Mechanical Ventilation System is a ventilation system consisting of powered ventilation equipment such as motor-driven fans and blowers and related mechanical components such as ducts, inlets, dampers, filters and associated control devices that provides dwelling-unit ventilation at a known or measured airflow rate.”</p>
01053	11/11/2020	National HVAC Design Report (Version 3 / 3.1, Rev. 10)	Refinement	<p>Item 2.7 – Improved example of ventilation control that must be labeled</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. This Item requires that ventilation override controls be labeled if their function is not obvious. One example of a control that must be labeled is provided in the Item: “a standalone wall switch”. This example could be more clearly stated as “a toggle wall switch”.</p> <p>Resolution: To improve clarity of the program requirements, Item 2.7 will be revised, as follows:</p> <p>“Specified controls include a readily-accessible ventilation override and a label has also been specified if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that’s on the ventilation equipment).”</p>
01054	11/11/2020		Change	Item 2.8 – Enhanced requirements for ventilation inlets on return-side of HVAC system

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		<p>National HVAC Design Report (Version 3 / 3.1, Rev. 10)</p>	<p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Currently, Item 2.8 requires in part that an outdoor air inlet connected to the return-side of the HVAC system be restricted when the system is “not in use”. The intent of this requirement is to restrict outdoor air when the ventilation system is in an off-cycle (which would not be applicable to continuous systems), and, if an occupant override has occurred.</p> <p>Furthermore, the intent is for a motorized damper to be used to restrict this airflow. This Item currently lists a motorized damper as one example of a compliant strategy, but in fact it is the only strategy that has been identified to date. As currently written, partners may mistakenly believe that other damper types, such a barometric damper, would also meet this intent. However, this would be incorrect because a barometric damper could be pulled open even when ventilation was not desired, simply from the pressure of the HVAC fan.</p> <p>In short, the intent of this Item could be clearer. Furthermore, partners have observed that air inlets on the return-side might be used as a dedicated source of air for an exhaust ventilation system (e.g., bath exhaust fan paired with a return-side inlet). This would be acceptable if the inlet could: a) automatically restrict airflow during ventilation off-cycles and occupant overrides, and; b) not bring in significantly more outdoor air than is being exhausted, which could happen because the inlet is closer to the powerful HVAC fan than the bath fan.</p> <p>Resolution: To improve clarity and expand the scope of this Item, it will be rewritten to capture these two requirements for return-side ventilation air inlets:</p> <ol style="list-style-type: none"> 1. Restrict airflow using a motorized damper during vent. off-cycle and occupant override. 2. Rater verification that the ventilation rate is \leq 15 CFM or 15% above the design value at the highest HVAC fan speed. <p>Regarding the second requirement, the Rater will satisfy this if the inlet is part of the ventilation system verified in Item 7.1 of the National Rater Field Checklist (e.g., an inline fan connected to the return-side of the HVAC system). If not previously measured, this new requirement will ensure that the HVAC fan does not draw in significantly more outdoor air than the ventilation design.</p> <p>With that said, as an alternative to measuring the airflow for this situation, a Constant Airflow Regulating (CAR) damper will be permitted to be used. CAR dampers are designed to limit the airflow going through them to a known rate, up to a relatively high static pressure such as 0.8 IWC. Therefore, installing such a damper would ensure that the program’s intent is met even without a measurement of the airflow.</p> <p>To reflect these changes, Item 2.8 will be revised as follows:</p>
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				<p>“For any outdoor air inlet designed to connect to a ducted return of the HVAC system, specified controls automatically restrict airflow using a motorized damper during ventilation off-cycle and occupant override.”</p> <p>To emphasize three points regarding Item 2.8 a new Footnote will be added associated with Item 2.8 and Section 2 in general. First, that Item 2.8 applies to all inlets connected to a ducted return. Second, to provide examples of when the airflow must be restricted on the return-side outdoor air inlet. And third, to provide guidance on when and how the Rater measures the airflow through the return-side outdoor inlet, and to add the alternative use of the CAR damper in lieu of measurement. The new Footnote will read as follows:</p> <p>“Item 2.8 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return. For example, if an outdoor air inlet connected to a ducted return is used as a dedicated source of outdoor air for an exhaust ventilation system (e.g., bath fan), the outdoor airflow must be automatically restricted when the exhaust fan is not running and in the event of an override of the exhaust ventilation system. Note that a Rater will generally measure the ventilation rate at the highest HVAC fan speed applicable to ventilation mode (e.g., if the inlet only opens when the HVAC is in ‘fan-only’ mode, it will be tested in this mode) to verify that it is \leq 15 CFM or 15% above design value. As an alternative, measurement of the outdoor airflow can be waived if a Constant Airflow Regulating (CAR) damper with a manufacturer-specified maximum flow rate no higher than 15 CFM or 15% above the ventilation design value is installed on the inlet.”</p>
01056	11/11/2020	National HVAC Design Report (Version 3 / 3.1, Rev. 10)	Change	<p>Item 2.10 – Allowance for continuous return-side systems; integration of HVAC fan operation limitations</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Item 2.8 currently requires, in part, that no outdoor air inlets be connected to the return-side of the HVAC system, unless controls are installed to operate intermittently. The intent of this requirement is to limit energy consumption by not allowing continuous operation of the HVAC fan.</p> <p>When this requirement was first drafted, the only common ventilation system utilizing an inlet to the return-side of the HVAC system was one that used the HVAC fan itself as the primary ventilation fan. Since that time, the use of ventilation systems that don’t use the HVAC fan as the primary ventilation fan have become more commonplace (e.g., ERV’s, HRV’s, and inline fans). These should be allowed to be connected to the return-side of the HVAC system, even if running continuously.</p> <p>Furthermore, some ventilation systems have the ability to control the HVAC fan even when the ventilation system has its own fan (e.g., an inline fan might turn on the HVAC fan for mixing). Even in these cases, the HVAC fan should not run continuously, to limit energy consumption.</p>

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				<p>Resolution: To allow continuously-operating ventilation systems that are connected to the return-side of the HVAC system to be used, the language in Item 2.8 regarding intermittent operation will be removed. Furthermore, to group all efficiency requirements related to the HVAC fan in one Item, to prohibit the ventilation system controller from continuously operating the HVAC fan (regardless of whether the HVAC fan is the primary ventilation fan), and to improve conciseness, Item 2.10 will be revised, as follows:</p> <p>“If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type in Item 4.7 is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours.”</p> <p>In addition, to emphasize that the use of a the ‘fan-on’ setting of a thermostat is prohibited from being used as the ventilation controller (because it would operate the HVAC fan continuously), a new Footnote will be added to Item 2.10 as follows:</p> <p>“Note that the ‘fan-on’ setting of a thermostat would not be an acceptable controller because it would continuously operate the HVAC fan.”</p>
01061	11/11/2020	National HVAC Design Report (Version 3 / 3.1, Rev. 10)	Refinement	<p>Item 3.3 – Minor updates to design temperature limit examples and references</p> <p>Issue: EPA identified three updates to Footnote 13, referenced by Item 3.3, which could improve clarity.</p> <p>First, the Footnote gives examples of temperatures for locations from the 2015 edition of the Design Temperature Limit Reference Guide. However, this guide has since been updated to the 2019 edition, and the temperatures in the Footnote do not reflect the latest edition.</p> <p>Second, the Footnote refers to the “ENERGY STAR Certified Homes Design Temperature Limit Reference Guide”, but the guide is applicable to both the Certified Homes and the Multifamily New Construction Program. So, a generic name could be more accurate and save space within the document.</p> <p>Third, the Footnote provides a link directly to the Design Temperature Exception Request Form. Providing a link to the webpage where this file is hosted could provide partners with additional context on when it should be used.</p> <p>Resolution: To accurately reference design temperatures for counties in the 2019 edition of the Design Temperature Limit Reference Guide, the Footnote will be updated such that “Frederick County” will replace “Fauquier County” and “Albemarle County” will replace “Arlington County.”</p> <p>To more accurately reference the program document name, the phrase “ENERGY STAR Certified Homes Design Temperature Limit Reference Guide” will be replaced with “Design Temperature Limit Reference Guide”.</p>

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				<p>Finally, to provide additional context on when and how to use the Design Temperature Exception Request form, the link directly to the form will be removed and the last sentence of the Footnote will be revised to:</p> <p>“If a jurisdiction-specified design temperature is used that exceeds the limit in the Design Temperature Limit Reference Guide, designers must submit a Design Temperature Exception Request available at energystar.gov/hvacdesigntemps.”</p>
01062	11/11/2020	National Rater Design Review Checklist (Version 3 / 3.1, Rev. 10)	Refinement	<p>Item 4b.2.1 – Minor updates to design temperature limit examples and references</p>
				<p>Issue: EPA identified an update to Footnote 11, referenced by Item 4b.2.1, which could improve clarity. The Footnote gives examples of temperatures for locations from the 2015 edition of the Design Temperature Limit Reference Guide. However, this guide has since been updated to the 2019 edition, and the temperatures in the Footnote do not reflect the latest edition.</p>
				<p>Resolution: To accurately reference design temperatures for counties in the 2019 edition of the Design Temperature Limit Reference Guide, the Footnote will be updated such that “Frederick County” will replace “Fauquier County” and “Albemarle County” will replace “Arlington County.”</p>
00947	05/01/2020	National HVAC Commissioning Checklist (Version 3 / 3.1, Rev. 10)	Clarification	<p>Minotair Pentacare is exempted system type</p>
				<p>Issue: A partner has asked whether the Minotair Pentacare is an exempted system type, in which case this Checklist would not be required to be completed. The Minotair Pentacare is a crossover device, similar to the CERV, that is an ERV with an integrated air-to-air heat pump.</p>
				<p>Resolution: For the purposes of this program, the Minotair Pentacare is considered a ventilation system and is therefore an exempted system type. Therefore, if a Minotair Pentacare system is installed in the home, and none of the applicable HVAC systems listed in Footnote 1 are installed in the home, then the HVAC Commissioning Checklist is not required to be completed, nor is a credentialed contractor required to be used.</p>
01037	11/11/2020	National Water Management System Builder Requirements (Version 3 / 3.1, Rev. 10)	Clarification	<p>Item 1.1 – All impermeable surfaces must meet slope requirements</p>
				<p>Issue: This Item references several specific examples of impermeable surfaces that must be sloped. However, the intent is that any impermeable surface should meet these slope requirements.</p>
				<p>Resolution: This Item will be revised so that it is broadly applicable to all impermeable surfaces, as follows:</p> <p>“Impermeable surfaces (e.g., patio, porch, or plaza slabs; sidewalks; ramps; driveways), sloped \geq 0.25 in. per ft. away from building to edge of surface or 10 ft., whichever is less.”</p>

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01038	11/11/2020	National Water Management System Builder Requirements (Version 3 / 3.1, Rev. 10)	Clarification	Item 1.2 – All permeable surfaces must meet slope requirements
				Issue: This Item requires that the “final grade” must be sloped. However, the intent is that any permeable surface should meet these slope requirements.
				Resolution: This Item will be revised so that it is broadly applicable to all permeable surfaces, as follows: “Back-fill has been tamped, and permeable surfaces sloped \geq 0.5 in. per ft. away from building for \geq 10 ft. Alternatives in Footnote.”
00943	05/01/2020	National Water Management System Builder Requirements (Version 3 / 3.1, Rev. 10)	Clarification	Item 1.4.2 – Mechanical fasteners used as an equivalent to furring strips
				Issue: Partners have asked if mechanical fasteners (e.g., Hilti Shot pins with plastic washers) are ‘equivalent’ to fastening polyethylene sheeting to crawlspace walls or piers with furring strips.
				Resolution: Mechanical fasteners are equivalent to furring strips if they are designed to secure a material such as polyethylene sheeting to the type of foundation walls or piers present (i.e., different fasteners may be needed for concrete versus wood) and the fasteners have caps of \geq 1 in. diameter, unless otherwise indicated by the manufacturer. Additionally, EPA recommends, but does not require, that any seams in the sheeting be sealed with a continuous bead of acoustical sealant, butyl rubber, or butyl acrylic caulk, or with tape manufactured to seal or patch polyethylene sheeting.
01039	11/11/2020	National Water Management System Builder Requirements (Version 3 / 3.1, Rev. 10)	Clarification	Item 1.7 – Requirement is to cover sump pit, not sump pump
				Issue: This Item states that a cover for the “sump pump” must be mechanically attached with a full gasket seal or equivalent. In fact, it is the sump pit that should be covered, rather than the pump itself.
				Resolution: This Item will be revised to more clearly state the requirement that the sump pit must be covered, as follows: “Sump pit cover mechanically attached with full gasket seal or equivalent.”
01040	11/11/2020	National Water Management System Builder Requirements (Version 3 / 3.1, Rev. 10)	Clarification	Item 1.8 – Compliance option is to discharge to a sump pit with a pump
				Issue: This Item states that one compliance option is to discharge the drain tile to a sump pump. However, the intent could be more clearly stated as a requirement to discharge to a sump pit with a pump, rather than directly to a pump.
				Resolution: This Item will be revised to more clearly state the intent of the requirement, as follows:

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				“..discharge to outside grade (daylight) or to a sump pit with a pump.”
00964	11/11/2020	National Water Management System Builder Requirements (Version 3 / 3.1, Rev. 10)	Clarification	Item 2.1, Item 2.2 & Footnote 10 – Additional bond-break layer not needed behind anchored stone / masonry veneer
				Issue: Partners have asked whether a brick veneer with an air gap, which is an example of an anchored masonry veneer, is required to have an additional bond-break drainage plane, per Item 2.2.. The current language, which references “non-structural masonry cladding” does not distinguish between anchored and adhered veneers.
				Resolution: Item 2.2 was not intended to require anchored stone / masonry veneers to have an additional bond-break layer, because the air gap will provide the space required for the drainage plane to function. To improve clarity, Items 2.1 and 2.2, and associated Footnote 10, will be updated to use the terms “adhered stone / masonry veneer” and “anchored stone / masonry veneer”, which are defined in the 2018 International Residential Code (IRC). Item 2.1, Item 2.2, and Footnote 10 will be updated as follows: “2.1 Flashing at bottom of exterior walls, with weep holes included for <u>anchored stone / masonry veneer</u> and weep screed for <u>adhered stone / masonry veneer or stucco cladding systems</u> , or equivalent drainage system. ¹⁰ ” “2.2 Fully sealed continuous drainage plane behind exterior cladding that laps over flashing in Item 2.1 and fully sealed at all penetrations. Additional bond-break drainage plane layer provided behind all stucco and non-structural masonry cladding <u>adhered stone / masonry veneer or stucco cladding wall assemblies</u> . ^{10, 11} ” Footnote 10. “These Items not required for existing structural masonry walls (e.g., in a home undergoing a gut rehabilitation). Note this exemption does not extend to existing wall assemblies with <u>adhered or anchored stone / masonry veneers</u> .”
01014	11/11/2020	National ERI Target Procedure (Version 3, Rev. 10)	Clarification	Item 1 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework
				Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices. Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ERI Target Procedure can be simplified by referencing the HCO framework.
				Resolution: In order to align with the HCO framework, Item 1 will be updated as follows:

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				<p>“The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.”</p>
01044	11/11/2020	National ERI Target Procedure (Version 3, Rev. 10)	Change	<p>Heating System & Cooling System Sections: Grade III installation quality</p>
				<p>Issue: With the development of ANSI / RESNET / ACCA 310, forced-air HVAC systems now have the ability to have their installation quality graded. As a result, the ERI Target Procedure needs to be updated to indicate how the forced-air HVAC systems specified within should be configured.</p> <p>Resolution: The forced-air HVAC systems will be configured with Grade III, so that the ENERGY STAR ERI target should remain approximately the same as before the implementation of ANSI / RESNET / ACCA 310. This is preferable to configuring the systems with Grade I or II; under that scenario, dwelling units using Track B would be required to select new efficiency measures to meet the new more stringent target, even though they’re satisfying the program’s requirement for quality-installed equipment.</p> <p>To reflect this change, a new row will be added to the Heating Systems Section, as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for air-source heat pumps, also Grade III ref. charge.”</p> <p>Similarly, the Cooling Systems Section will be updated to add a new row as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for AC’s & air-source heat pumps, also Grade III ref. charge.”</p> <p>Because the Electric Auxiliary Energy of non-electric warm furnaces will be calculated using a new methodology under ANSI / RESNET / ACCA 310, which does not depend on capacity alone, the row in the Heating Systems Section that addresses this parameter will be revised by removing the phrase, “..using the capacity determined in this Section.”</p> <p>Because the capacity of forced-air HVAC systems will be degraded by a Grade III installation, the capacity of the system needs to account for this, rather than being selected strictly in accordance with ACCA Manual S. To reflect this, the following sentence will be added to the row in the Heating Systems and Cooling Systems Section that addresses this parameter: “For forced-air HVAC systems, degraded capacity from Grade III install shall be accounted for using same methodology applied to Energy Rating Reference Home.”</p>
00950	08/07/2020	National ERI Target Procedure (Version 3, Rev. 10)	Change	<p>Exhibit 2 – Dishwasher inputs updated</p>
				<p>Issue: With the adoption of ANSI/RESNET/ICC Standard 301-2019 Addendum A, the ENERGY STAR Reference Design Definition needs to be updated for</p>

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				<p>dishwashers. Previously, Energy Factor was used to determine dishwasher efficiency; however, calculations in Addendum A require different metrics for inputs.</p> <p>Resolution: The dishwasher configuration will be updated to align with the default values in Addendum A for a standard-capacity and compact-capacity ENERGY STAR dishwasher. Specifically, the row for dishwashers in the Lighting, Appliances, & Internal Gains section will be updated as follows: “Capacity Same as Rated Home, or Standard if no dishwasher in the Rated Home For Standard capacity: LER = 270, GHWC = \$22.23, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208 For Compact capacity: LER = 203, GHWC = \$14.20, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208</p>
00966	11/11/2020	National ERI Target Procedure (Version 3, Rev. 10)	Refinement	<p>Footnote 4, 5, 6, & 10 – Multiple footnotes updated to align with other program documents</p>
				<p>Issue: There are several differences between footnotes in this document, and similar footnotes in other program documents, and aligning the language used would improve consistency.</p>
				<p>Resolution: To reduce potential confusion several footnotes will be edited, created, or removed to align with the National ERI Target Procedure (Version 3.1, Rev. 10). The following changes will be made.</p> <p>Footnote 4 will be updated as follows: Any parameter not specified in this exhibit shall be <u>identical to the value entered for the Rated Home</u> set to “Same as Rated Home”.</p> <p>A new footnote will be added after Footnote 4 that states: <u>“Same as Rated Home” indicates that the parameter shall be identical to the value entered for the Rated Home.</u></p> <p>Footnote 5, along with the Climate Zone map, will be deleted.</p> <p>Footnote 6 will be updated as follows: <u>For informative purposes, assembly U-factors are meant to correlate to typical assemblies containing the nominal R-values as listed in 2009 IECC Table 402.1.1. Slab insulation R-values represent nominal insulation levels; and assembly U-factors for foundations, floors, walls, and ceilings represent the overall assembly, inclusive of sheathing materials, cavity insulation, installation quality, framing, and interior finishes.</u></p> <p>Footnote 10 will be updated as follows: In the ENERGY STAR Reference Design, f Fuel type(s) shall be same as Rated Home, including any dual-fuel equipment where applicable. For a Rated Home with multiple heating, cooling, or water heating systems using different fuel types, the applicable system capacities</p>

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				and fuel types shall be weighted in accordance with the loads distribution (as calculated by accepted engineering practice for that equipment and fuel type) of the multiple systems.
01013	11/11/2020	National ERI Target Procedure (Version 3.1, Rev. 10)	Clarification	Paragraph 2 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework
				Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices. Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ERI Target Procedure can be simplified by referencing the HCO framework.
				Resolution: In order to align with the HCO framework, Paragraph 2 will be updated as follows: “The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions .”
01045	11/11/2020	National ERI Target Procedure (Version 3.1, Rev. 10)	Change	Heating System & Cooling System Sections: Grade III installation quality
				Issue: With the development of ANSI / RESNET / ACCA 310, forced-air HVAC systems now have the ability to have their installation quality graded. As a result, the ERI Target Procedure needs to be updated to indicate how the forced-air HVAC systems specified within should be configured.
				Resolution: The forced-air HVAC systems will be configured with Grade III, so that the ENERGY STAR ERI target should remain approximately the same as before the implementation of ANSI / RESNET / ACCA 310. This is preferable to configuring the systems with Grade I or II; under that scenario, dwelling units using Track B would be required to select new efficiency measures to meet the new more stringent target, even though they’re satisfying the program’s requirement for quality-installed equipment. To reflect this change, a new row will be added to the Heating Systems Section, as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for air-source heat pumps, also Grade III ref. charge.” Similarly, the Cooling Systems Section will be updated to add a new row as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for AC’s & air-source heat pumps, also Grade III ref. charge.” Because the Electric Auxiliary Energy of non-electric warm furnaces will be calculated using a new methodology under ANSI / RESNET / ACCA 310, which does not depend on capacity

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				<p>alone, the row in the Heating Systems Section that addresses this parameter will be revised by removing the phrase, “..using the capacity determined in this Section.”</p> <p>Because the capacity of forced-air HVAC systems will be degraded by a Grade III installation, the capacity of the system needs to account for this, rather than being selected strictly in accordance with ACCA Manual S. To reflect this, the following sentence will be added to the row in the Heating Systems and Cooling Systems Section that addresses this parameter:</p> <p>“For forced-air HVAC systems, degraded capacity from Grade III install shall be accounted for using same methodology applied to Energy Rating Reference Home.”</p>
00951	08/07/2020	National ERI Target Procedure (Version 3.1, Rev. 10)	Change	<p>Exhibit 1 – Dishwasher inputs updated</p>
				<p>Issue: With the adoption of ANSI/RESNET/ICC Standard 301-2019 Addendum A, the ENERGY STAR Reference Design Definition needs to be updated for dishwashers. Previously, Energy Factor was used to determine dishwasher efficiency; however, calculations in Addendum A require different metrics for inputs.</p>
				<p>Resolution: The dishwasher configuration will be updated to align with the default values in Addendum A for a standard-capacity and compact-capacity ENERGY STAR dishwasher. Specifically, the row for dishwashers in the Lighting, Appliances, & Internal Gains section will be updated as follows:</p> <p>“Capacity Same as Rated Home, or Standard if no dishwasher in the Rated Home</p> <p>For Standard capacity: LER = 270, GHWC = \$22.23, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208</p> <p>For Compact capacity: LER = 203, GHWC = \$14.20, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208</p>
00970	11/11/2020	California Program Requirements (Version 3.2, Rev. 10)	Refinement	<p>Eligibility Requirements Section – Streamlined language regarding local code</p>
				<p>Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.</p>
				<p>Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows:</p> <p>“Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”</p>
00986	11/11/2020	California Program Requirements (Version 3.2, Rev. 10)	Change	<p>Eligibility Requirements Section – Harmonizing eligibility requirements with MFNC</p>
				<p>Issue: All multifamily dwelling units other than two-family dwellings will be required to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction (MFNC) program for buildings permitted on or after July 1, 2021. Therefore, the Eligibility Requirements section and corresponding Footnotes need to be revised with the updated criteria for the ENERGY STAR Certified Homes program.</p>

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				<p>Resolution: To reflect the revised eligibility of the ENERGY STAR Certified Homes program accordingly, the Eligibility Requirements section and corresponding Footnotes will be updated as follows:</p> <p>“The following site-built or modular ¹ homes are eligible to earn the ENERGY STAR:</p> <ul style="list-style-type: none"> • Dwellings ² (e.g., single-family homes, duplexes) • Townhouses ³ <p>Dwelling Units in certain low-rise multifamily buildings are also eligible to earn the ENERGY STAR through this program if permitted prior to July 1, 2021. See Footnote 4 for details. ⁴”</p> <p>The associated footnotes will be as follows:</p> <p>“2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.</p> <p>3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides. Townhouses are also eligible to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction Program.</p> <p>4. If permitted prior to July 1, 2021, the following are also eligible to earn the ENERGY STAR through the ENERGY STAR Single-Family New Homes program:</p> <ul style="list-style-type: none"> • Dwelling units in any multifamily building with 4 units or fewer; OR • Dwelling units in multifamily buildings with 3 stories or fewer above-grade; OR • Dwelling units in multifamily buildings with 4 or 5 stories above-grade where dwelling units occupy 80% or more of the occupiable square footage of the building. When evaluating mixed-use buildings for eligibility, exclude commercial / retail space when assessing whether the 80% threshold has been met. <p>Any above-grade story with 20% or more occupiable space, including commercial space, shall be counted towards the total number of stories for the purpose of determining eligibility to participate in the program. The definition of an ‘above-grade story’ is one for which more than half of the gross surface area of the exterior walls is above-grade. All below-grade stories, regardless of type, shall not be included when evaluating eligibility.</p>
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				<p>Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.”</p> <p>Finally, the existing Footnotes 4 and 5 will be removed.</p>
01041	11/11/2020	California Program Requirements (Version 3.2, Rev. 10)	Refinement	Exhibit 2 – Removal of rows with old permit dates
				Issue: The Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.
				Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted.
01033	11/11/2020	California Program Requirements (Version 3.2, Rev. 10)	Refinement	Footnote 9 – Correction to hyperlink
				Issue: Partners have noted that the hyperlink and the text for the website that provides information on the Delta EDR needs to be corrected.
				Resolution: Both the hyperlink and the text for the website that provides information on the Delta EDR will be corrected to “ https://cahp-pge.com/CAHP_TRC_Generation%20of%20EDR_2017.pdf ”
01028	11/11/2020	California Program Requirements (Version 3.2, Rev. 10)	Change	Footnote 13 – Continued use of Rev. 08, 09, and 10 HVAC Design Report
				Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.
				<p>Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11.</p> <p>Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes.</p> <p>To reflect this change, Footnote 13 will be updated as follows: “Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”</p>
00971	11/11/2020		Refinement	Eligibility Requirements Section – Streamlined language regarding local code

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		Florida Program Requirements (Version 3.1, Rev. 10)		<p>Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.</p> <p>Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows: “Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”</p>
00987	11/11/2020	Florida Program Requirements (Version 3.1, Rev. 10)	Change	<p>Eligibility Requirements Section – Harmonizing eligibility requirements with MFNC</p> <p>Issue: All multifamily dwelling units other than two-family dwellings will be required to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction (MFNC) program for buildings permitted on or after July 1, 2021. Therefore, the Eligibility Requirements section and corresponding Footnotes need to be revised with the updated criteria for the ENERGY STAR Certified Homes program.</p> <p>Resolution: To reflect the revised eligibility of the ENERGY STAR Certified Homes program, the Eligibility Requirements section and corresponding Footnotes will be updated as follows: “The following site-built or modular ¹ homes are eligible to earn the ENERGY STAR:</p> <ul style="list-style-type: none"> • Dwellings ² (e.g., single-family homes, duplexes) • Townhouses ³ <p>Dwelling Units in certain low-rise multifamily buildings are also eligible to earn the ENERGY STAR through this program if permitted prior to July 1, 2021. See Footnote 4 for details. ⁴”</p> <p>The associated footnotes will be as follows:</p> <p>“2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.</p> <p>3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides. Townhouses are also eligible to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction Program.</p> <p>4. If permitted prior to July 1, 2021, the following are also eligible to earn the ENERGY STAR through the ENERGY STAR Single-Family New Homes program:</p> <ul style="list-style-type: none"> • Dwelling units in any multifamily building with 4 units or fewer; OR

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				<ul style="list-style-type: none"> • Dwelling units in multifamily buildings with 3 stories or fewer above-grade; OR • Dwelling units in multifamily buildings with 4 or 5 stories above-grade where dwelling units occupy 80% or more of the occupiable square footage of the building. When evaluating mixed-use buildings for eligibility, exclude commercial / retail space when assessing whether the 80% threshold has been met. <p>Any above-grade story with 20% or more occupiable space, including commercial space, shall be counted towards the total number of stories for the purpose of determining eligibility to participate in the program. The definition of an 'above-grade story' is one for which more than half of the gross surface area of the exterior walls is above-grade. All below-grade stories, regardless of type, shall not be included when evaluating eligibility.</p> <p>Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.”</p> <p>Finally, the existing Footnotes 4 and 5 will be removed.</p>
00999	11/11/2020	Florida Program Requirements (Version 3.1, Rev. 10)	Refinement	Step 4 – Updated references to ANSI / RESNET / ICC Standard 301
				Issue: Step 4 of the ENERGY STAR Certification Process, currently references the “on-site inspection procedures for minimum rated features of an EPA-recognized VOO.” These procedures are now specified in appendix B of ANSI / RESNET / ICC Standard 301.
				<p>Resolution: To ensure consistency with industry standards, Step 4 will be updated to refer to ANSI / RESNET / ICC Standard 301. To reflect this change the first sentence of Step 4 will be updated as follows:</p> <p>“Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with the on-site inspection procedures for minimum rated features of an EPA-recognized VOO in ANSI / RESNET / ICC Standard 301, Appendix B.”</p>
01000	11/11/2020	Florida Program Requirements (Version 3.1, Rev. 10)	Refinement	Step 4 – Requirement to submit homes to an HCO and follow other oversight protocols
				Issue: While Step 4 references the requirement to “register” homes, it does not explicitly mention the need to follow all oversight protocols of a Home Certification Organization (HCO). The appropriate reference to ensure all oversight protocols are followed is the ENERGY STAR Certification System, which establishes the certification policies and procedures required of an HCO.

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				<p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Step 4 will be updated with a reference to the ENERGY STAR Certification System and examples of applicable oversight protocols.</p> <p>To reflect these changes the second to last sentence in the first paragraph of Step 4 will be updated as follows:</p> <p style="padding-left: 40px;">“Finally, <u>submit the home to the HCO for final certification and follow the HCO’s certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting) register the rated home with the same EPA-recognized VOO.</u>”</p>
00980	11/11/2020	Florida Program Requirements (Version 3.1, Rev. 10)	Refinement	Exhibit 3 – Removal of rows with old permit dates
				<p>Issue: The Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.</p>
				<p>Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted.</p>
00944	05/01/2020	Florida Program Requirements (Version 3.1, Rev. 10)	Change	Exhibit 3 – National Version 3.1 Program Requirements allowed for use in Florida
				<p>Issue: Partners have requested that the National Program Requirements, Version 3.1, be allowed to be used to demonstrate compliance in Florida, in addition to the Florida Program Requirements, Version 3.1. While all software rating tools have the National version programmed in, not all tools have the Florida version programmed in. Therefore, allowing either version to be used in Florida would expand the number of tools available for use in that state.</p>
				<p>Resolution: The only difference between the National and Florida Version 3.1 programs is their respective ENERGY STAR ERI Targets, and these targets are of comparable stringency. All mandatory requirements are identical between the two program versions. Therefore, partners will be allowed to certify homes in Florida using either the Florida Version 3.1 or National Version 3.1 program requirements. Allowing both program versions to be used will provide partners with flexibility, without meaningfully impacting the stringency of the program in the state.</p> <p>To reflect this change, the following footnote will be added to Exhibit 3 in the Florida Program Requirements, Version 3.1:</p> <p>“Homes in Florida are permitted to be certified under the National Version 3.1 program requirements, in addition to these Florida Version 3.1 program requirements, using the same Revision number (e.g., If Florida Version 3.1 requires Rev. 10 based on the permit date of the home being certified, then Rev. 10 of the National Version 3.1 program requirements would also be permitted to be used.) ”</p>
01001	11/11/2020		Refinement	Footnote 10 – Sampling protocols and providers

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		Florida Program Requirements (Version 3.1, Rev. 10)		<p>Issue: Partners identified that Footnote 10 refers to “sampling providers”, which is a term used by RESNET but not defined in an industry standard. It was also identified that Footnote 10 could be modified to more accurately reflect the ENERGY STAR Certification System, which establishes the specific eligibility criteria, policy requirements, and certification procedures required of a Home Certification Organization (HCO).</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Footnote 10 will be revised to use the term “sampling protocol” instead of “sampling provider.”</p> <p>To reflect these changed Footnote 10 will be updated as follows:</p> <p style="padding-left: 40px;">“Raters who operate under an HCO with a Sampling Protocol Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated “Rater Verified” using an HCOVOO-approved <u>Sampling Protocol</u> sampling protocol. No parties other than Raters are permitted to use sampling. All other items shall be verified for each certified home. For example, no items on the HVAC Commissioning Checklist are permitted to be verified using a <u>sampling</u> Pprotocol.”</p>
01029	11/11/2020	Florida Program Requirements (Version 3.1, Rev. 10)	Change	<p>Footnote 14 – Continued use of Rev. 08, 09, and 10 HVAC Design Report</p> <p>Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.</p> <p>Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11.</p> <p>Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes.</p> <p>To reflect this change, Footnote 14 will be updated as follows:</p> <p>“Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”</p>
01015	11/11/2020		Clarification	Paragraph 2 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework

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		Florida ERI Target Procedure (Version 3.1, Rev. 10)		<p>Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices.</p> <p>Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ERI Target Procedure can be simplified by referencing the HCO framework.</p> <p>Resolution: In order to align with the HCO framework, Paragraph 2 will be updated as follows: “The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.”</p>
01046	11/11/2020	Florida ERI Target Procedure (Version 3.1, Rev. 10)	Change	<p>Heating System & Cooling System Sections: Grade III installation quality</p> <p>Issue: With the development of ANSI / RESNET / ACCA 310, forced-air HVAC systems now have the ability to have their installation quality graded. As a result, the ERI Target Procedure needs to be updated to indicate how the forced-air HVAC systems specified within should be configured.</p> <p>Resolution: The forced-air HVAC systems will be configured with Grade III, so that the ENERGY STAR ERI target should remain approximately the same as before the implementation of ANSI / RESNET / ACCA 310. This is preferable to configuring the systems with Grade I or II; under that scenario, dwelling units using Track B would be required to select new efficiency measures to meet the new more stringent target, even though they’re satisfying the program’s requirement for quality-installed equipment.</p> <p>To reflect this change, a new row will be added to the Heating Systems Section, as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for air-source heat pumps, also Grade III ref. charge.”</p> <p>Similarly, the Cooling Systems Section will be updated to add a new row as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for AC’s & air-source heat pumps, also Grade III ref. charge.”</p> <p>Because the Electric Auxiliary Energy of non-electric warm furnaces will be calculated using a new methodology under ANSI / RESNET / ACCA 310, which does not depend on capacity alone, the row in the Heating Systems Section that addresses this parameter will be revised by removing the phrase, “..using the capacity determined in this Section.”</p> <p>Because the capacity of forced-air HVAC systems will be degraded by a Grade III installation, the capacity of the system needs to account for this, rather than being selected strictly in</p>

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				accordance with ACCA Manual S. To reflect this, the following sentence will be added to the row in the Heating Systems and Cooling Systems Section that addresses this parameter: “For forced-air HVAC systems, degraded capacity from Grade III install shall be accounted for using same methodology applied to Energy Rating Reference Home.”
00952	08/07/2020	Florida ERI Target Procedure (Version 3.1, Rev. 10)	Change	Exhibit 1 – Dishwasher inputs updated
				Issue: With the adoption of ANSI/RESNET/ICC Standard 301-2019 Addendum A, the ENERGY STAR Reference Design Definition needs to be updated for dishwashers. Previously, Energy Factor was used to determine dishwasher efficiency; however, calculations in Addendum A require different metrics for inputs.
				Resolution: The dishwasher configuration will be updated to align with the default values in Addendum A for a standard-capacity and compact-capacity ENERGY STAR dishwasher. Specifically, the row for dishwashers in the Lighting, Appliances, & Internal Gains section will be updated as follows: “Capacity Same as Rated Home, or Standard if no dishwasher in the Rated Home For Standard capacity: LER = 270, GHWC = \$22.23, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208 For Compact capacity: LER = 203, GHWC = \$14.20, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208
00972	11/11/2020	Oregon and Washington Program Requirements (Version 3.2, Rev. 10)	Refinement	Eligibility Requirements Section – Streamlined language regarding local code
				Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.
				Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows: “Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”
00988	11/11/2020	Oregon and Washington Program Requirements (Version 3.2, Rev. 10)	Change	Eligibility Requirements Section – Harmonizing eligibility requirements with MFNC
				Issue: All multifamily dwelling units other than two-family dwellings will be required to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction (MFNC) program for buildings permitted on or after July 1, 2021. Therefore, the Eligibility Requirements section and corresponding Footnotes need to be revised with the updated criteria for the ENERGY STAR Certified Homes program.
				Resolution: To reflect the revised eligibility of the ENERGY STAR Certified Homes program accordingly, the Eligibility Requirements section and corresponding Footnotes will be updated as follows:

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				<p>“The following site-built or modular ¹ homes are eligible to earn the ENERGY STAR:</p> <ul style="list-style-type: none"> • Dwellings ² (e.g., single-family homes, duplexes) • Townhouses ³ <p>Dwelling Units in certain low-rise multifamily buildings are also eligible to earn the ENERGY STAR through this program if permitted prior to July 1, 2021. See Footnote 4 for details. ⁴”</p> <p>The associated footnotes will be as follows:</p> <p>“2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.</p> <p>3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides. Townhouses are also eligible to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction Program.</p> <p>4. If permitted prior to July 1, 2021, the following are also eligible to earn the ENERGY STAR through the ENERGY STAR Single-Family New Homes program:</p> <ul style="list-style-type: none"> • Dwelling units in any multifamily building with 4 units or fewer; OR • Dwelling units in multifamily buildings with 3 stories or fewer above-grade; OR • Dwelling units in multifamily buildings with 4 or 5 stories above-grade where dwelling units occupy 80% or more of the occupiable square footage of the building. When evaluating mixed-use buildings for eligibility, exclude commercial / retail space when assessing whether the 80% threshold has been met. <p>Any above-grade story with 20% or more occupiable space, including commercial space, shall be counted towards the total number of stories for the purpose of determining eligibility to participate in the program. The definition of an ‘above-grade story’ is one for which more than half of the gross surface area of the exterior walls is above-grade. All below-grade stories, regardless of type, shall not be included when evaluating eligibility.</p> <p>Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.”</p>
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				Finally, the existing Footnotes 4 and 5 will be removed.
01002	11/11/2020	Oregon and Washington Program Requirements (Version 3.2, Rev. 10)	Refinement	Step 4 – Updated references to ANSI / RESNET / ICC Standard 301
				Issue: Step 4 of the ENERGY STAR Certification Process, currently references the “on-site inspection procedures for minimum rated features of an EPA-recognized VOO.” These procedures are now specified in appendix B of ANSI / RESNET / ICC Standard 301.
				Resolution: To ensure consistency with industry standards, Step 4 will be updated to refer to ANSI / RESNET / ICC Standard 301. To reflect this change the first sentence of Step 4 will be updated as follows: <p style="padding-left: 40px;">“Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with the on-site inspection procedures for minimum rated features of an EPA-recognized VOO in <u>ANSI / RESNET / ICC Standard 301, Appendix B.</u>”</p>
01003	11/11/2020	Oregon and Washington Program Requirements (Version 3.2, Rev. 10)	Refinement	Step 4 – Requirement to submit homes to an HCO and follow other oversight protocols
				Issue: While Step 4 references the requirement to “register” homes, it does not explicitly mention the need to follow all oversight protocols of a Home Certification Organization (HCO). The appropriate reference to ensure all oversight protocols are followed is the ENERGY STAR Certification System, which establishes the certification policies and procedures required of an HCO.
				Resolution: To ensure consistency with the ENERGY STAR Certification System, Step 4 will be updated with a reference to the ENERGY STAR Certification System and examples of applicable oversight protocols. <p>To reflect these changes the second to last sentence in the first paragraph of Step 4 will be updated as follows: <p style="padding-left: 40px;">“Finally, <u>submit the home to the HCO for final certification and follow the HCO’s certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting)</u> register the rated home with the same EPA-recognized VOO.”</p></p>
00981	11/11/2020	Oregon and Washington Program Requirements (Version 3.2, Rev. 10)	Refinement	Exhibit 3 – Removal of rows with old permit dates
				Issue: The Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.
				Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted.
01004	11/11/2020		Refinement	Footnote 10 – Sampling protocols and providers

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		Oregon and Washington Program Requirements (Version 3.2, Rev. 10)		<p>Issue: Partners identified that Footnote 10 refers to “sampling providers”, which is a term used by RESNET but not defined in an industry standard. It was also identified that Footnote 10 could be modified to more accurately reflect the ENERGY STAR Certification System, which establishes the specific eligibility criteria, policy requirements, and certification procedures required of a Home Certification Organization (HCO).</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Footnote 10 will be revised to use the term “sampling protocol” instead of “sampling provider.”</p> <p>To reflect these changed Footnote 10 will be updated as follows:</p> <p>“Raters who operate under an HCO with a Sampling Protocol Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated “Rater Verified” using an HCOVCO-approved <u>Sampling Protocol</u> sampling protocol. No parties other than Raters are permitted to use sampling. All other items shall be verified for each certified home. For example, no items on the HVAC Commissioning Checklist are permitted to be verified using a <u>sampling</u> Pprotocol.”</p>
01030	11/11/2020	Oregon and Washington Program Requirements (Version 3.2, Rev. 10)	Change	<p>Footnote 15 – Continued use of Rev. 08, 09, and 10 HVAC Design Report</p> <p>Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.</p> <p>Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11.</p> <p>Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes.</p> <p>To reflect this change, Footnote 15 will be updated as follows:</p> <p>“Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”</p>
01016	11/11/2020	Oregon and Washington ERI	Clarification	<p>Paragraph 2 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework</p>

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		Target Procedure (Version 3.2, Rev. 10)		<p>Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices.</p> <p>Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ERI Target Procedure can be simplified by referencing the HCO framework.</p> <p>Resolution: In order to align with the HCO framework, Paragraph 2 will be updated as follows: “The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.”</p>
01047	11/11/2020	Oregon and Washington ERI Target Procedure (Version 3.2, Rev. 10)	Change	<p>Heating System & Cooling System Sections: Grade III installation quality</p> <p>Issue: With the development of ANSI / RESNET / ACCA 310, forced-air HVAC systems now have the ability to have their installation quality graded. As a result, the ERI Target Procedure needs to be updated to indicate how the forced-air HVAC systems specified within should be configured.</p> <p>Resolution: The forced-air HVAC systems will be configured with Grade III, so that the ENERGY STAR ERI target should remain approximately the same as before the implementation of ANSI / RESNET / ACCA 310. This is preferable to configuring the systems with Grade I or II; under that scenario, dwelling units using Track B would be required to select new efficiency measures to meet the new more stringent target, even though they’re satisfying the program’s requirement for quality-installed equipment.</p> <p>To reflect this change, a new row will be added to the Heating Systems Section, as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for air-source heat pumps, also Grade III ref. charge.”</p> <p>Similarly, the Cooling Systems Section will be updated to add a new row as follows: “Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for AC’s & air-source heat pumps, also Grade III ref. charge.”</p> <p>Because the Electric Auxiliary Energy of non-electric warm furnaces will be calculated using a new methodology under ANSI / RESNET / ACCA 310, which does not depend on capacity alone, the row in the Heating Systems Section that addresses this parameter will be revised by removing the phrase, “..using the capacity determined in this Section.”</p> <p>Because the capacity of forced-air HVAC systems will be degraded by a Grade III installation, the capacity of the system needs to account for this, rather than being selected strictly in</p>

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				accordance with ACCA Manual S. To reflect this, the following sentence will be added to the row in the Heating Systems and Cooling Systems Section that addresses this parameter: “For forced-air HVAC systems, degraded capacity from Grade III install shall be accounted for using same methodology applied to Energy Rating Reference Home.”
00953	08/07/2020	Oregon and Washington ERI Target Procedure (Version 3.2, Rev. 10)	Change	Exhibit 1 – Dishwasher inputs updated
				Issue: With the adoption of ANSI/RESNET/ICC Standard 301-2019 Addendum A, the ENERGY STAR Reference Design Definition needs to be updated for dishwashers. Previously, Energy Factor was used to determine dishwasher efficiency; however, calculations in Addendum A require different metrics for inputs.
				Resolution: The dishwasher configuration will be updated to align with the default values in Addendum A for a standard-capacity and compact-capacity ENERGY STAR dishwasher. Specifically, the row for dishwashers in the Lighting, Appliances, & Internal Gains section will be updated as follows: “Capacity Same as Rated Home, or Standard if no dishwasher in the Rated Home For Standard capacity: LER = 270, GHWC = \$22.23, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208 For Compact capacity: LER = 203, GHWC = \$14.20, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208
00973	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Refinement	Eligibility Requirements Section – Streamlined language regarding local code
				Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.
				Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows: “Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”
01017	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Clarification	Step 1 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework
				Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices. Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ENERGY STAR Certification Process can be simplified by referencing the HCO framework.

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				<p>Resolution: In order to align with the HCO framework, Step 1 of the ENERGY STAR Certification process will be updated as follows:</p> <p>“The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.”</p>
01018	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Clarification	<p>Step 1 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework</p>
				<p>Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices.</p> <p>Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ENERGY STAR Certification Process can be simplified by referencing the HCO framework.</p>
				<p>Resolution: In order to align with the HCO framework, Step 1 of the ENERGY STAR Certification process will be updated as follows:</p> <p>“The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.”</p>
01005	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Refinement	<p>Step 3 – Updated references to ANSI / RESNET / ICC Standard 301</p>
				<p>Issue: Step 3 of the ENERGY STAR Certification Process, currently references the “on-site inspection procedures for minimum rated features of an EPA-recognized VOO.” These procedures are now specified in appendix B of ANSI / RESNET / ICC Standard 301.</p>
				<p>Resolution: To ensure consistency with industry standards, Step 3 will be updated to refer to ANSI / RESNET / ICC Standard 301. To reflect this change the first sentence of Step 4 will be updated as follows:</p> <p>“Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with the on-site inspection procedures for minimum rated features of an EPA-recognized VOO in <u>ANSI / RESNET / ICC Standard 301, Appendix B.</u>”</p>
01006	11/11/2020		Refinement	<p>Step 3 – Requirement to submit homes to an HCO and follow other oversight protocols</p>

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		Caribbean Program Requirements (Version 3, Rev. 10)		<p>Issue: While Step 3 references the requirement to “register” homes, it does not explicitly mention the need to follow all oversight protocols of a Home Certification Organization (HCO). The appropriate reference to ensure all oversight protocols are followed is the ENERGY STAR Certification System, which establishes the certification policies and procedures required of an HCO.</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Step 3 will be updated with a reference to the ENERGY STAR Certification System and examples of applicable oversight protocols.</p> <p>To reflect these changes the second to last sentence in the first paragraph of Step 3 will be updated as follows:</p> <p>“Finally, <u>submit the home to the HCO for final certification and follow the HCO’s certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting) register the rated home with the same EPA recognized VOO.</u>”</p>
00982	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Refinement	<p>Exhibit 3 – Removal of rows with old permit dates</p> <p>Issue: The Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.</p> <p>Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted.</p>
01007	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Refinement	<p>Footnote 9 – Sampling protocols and providers</p> <p>Issue: Partners identified that Footnote 9 refers to “sampling providers”, which is a term used by RESNET but not defined in an industry standard. It was also identified that Footnote 9 could be modified to more accurately reflect the ENERGY STAR Certification System, which establishes the specific eligibility criteria, policy requirements, and certification procedures required of a Home Certification Organization (HCO).</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Footnote 9 will be revised to use the term “sampling protocol” instead of “sampling provider.”</p> <p>To reflect these changed Footnote 9 will be updated as follows:</p> <p>“Raters who operate under an <u>HCO with a Sampling Protocol</u> Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated “Rater Verified” using an <u>HCO/VOO-approved Sampling Protocol</u> sampling protocol. No parties other than Raters are permitted to use sampling. All other items shall be verified for each certified home. For example, no items on the HVAC Commissioning Checklist are permitted to be verified using a <u>sampling</u> sampling <u>Protocol</u> protocol.”</p>

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01031	11/11/2020	Caribbean Program Requirements (Version 3, Rev. 10)	Change	Footnote 13 – Continued use of Rev. 08, 09, and 10 HVAC Design Report
				Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.
				Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11. Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes. To reflect this change, Footnote 13 will be updated as follows: “Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”
00974	11/11/2020	Pacific Program Requirements (Version 3, Rev. 10)	Refinement	Eligibility Requirements Section – Streamlined language regarding local code
				Issue: The conciseness of the last sentence of the Eligibility Requirements section, which clarifies the overlap between program requirements and local code, can be improved.
				Resolution: To improve conciseness, the last sentence of the Eligibility Requirements section will be updated as follows: “Note that compliance with these requirements is not intended to imply compliance with all local code requirements.”
00989	11/11/2020	Pacific Program Requirements (Version 3, Rev. 10)	Change	Eligibility Requirements Section – Harmonizing eligibility requirements with MFNC
				Issue: All multifamily dwelling units other than two-family dwellings will be required to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction (MFNC) program for buildings permitted on or after July 1, 2021. Therefore, the Eligibility Requirements section and corresponding Footnotes need to be revised with the updated criteria for the ENERGY STAR Certified Homes program.
				Resolution: To reflect the revised eligibility of the ENERGY STAR Certified Homes program accordingly, the Eligibility Requirements section and corresponding Footnotes will be updated as follows: “The following site-built or modular ¹ homes are eligible to earn the ENERGY STAR: <ul style="list-style-type: none"> • Dwellings ² (e.g., single-family homes, duplexes)

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				<ul style="list-style-type: none"> • Townhouses³ <p>Dwelling Units in certain low-rise multifamily buildings are also eligible to earn the ENERGY STAR through this program if permitted prior to July 1, 2021. See Footnote 4 for details.⁴</p> <p>The associated footnotes will be as follows:</p> <p>“2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.</p> <p>3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides. Townhouses are also eligible to earn the ENERGY STAR through the ENERGY STAR Multifamily New Construction Program.</p> <p>4. If permitted prior to July 1, 2021, the following are also eligible to earn the ENERGY STAR through the ENERGY STAR Single-Family New Homes program:</p> <ul style="list-style-type: none"> • Dwelling units in any multifamily building with 4 units or fewer; OR • Dwelling units in multifamily buildings with 3 stories or fewer above-grade; OR • Dwelling units in multifamily buildings with 4 or 5 stories above-grade where dwelling units occupy 80% or more of the occupiable square footage of the building. When evaluating mixed-use buildings for eligibility, exclude commercial / retail space when assessing whether the 80% threshold has been met. <p>Any above-grade story with 20% or more occupiable space, including commercial space, shall be counted towards the total number of stories for the purpose of determining eligibility to participate in the program. The definition of an ‘above-grade story’ is one for which more than half of the gross surface area of the exterior walls is above-grade. All below-grade stories, regardless of type, shall not be included when evaluating eligibility.</p> <p>Per ASHRAE 62.2-2010, occupiable space is any enclosed space inside the pressure boundary and intended for human activities or continual human occupancy, including, but not limited to, areas used for living, sleeping, dining, and cooking, toilets, closets, halls, storage and utility areas, and laundry areas.”</p> <p>Finally, the existing Footnotes 4 and 5 will be removed.</p>
01008	11/11/2020		Refinement	Step 4 – Updated references to ANSI / RESNET / ICC Standard 301

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		Pacific Program Requirements (Version 3, Rev. 10)		<p>Issue: Step 4 of the ENERGY STAR Certification Process, currently references the “on-site inspection procedures for minimum rated features of an EPA-recognized VOO.” These procedures are now specified in appendix B of ANSI / RESNET / ICC Standard 301.</p> <p>Resolution: To ensure consistency with industry standards, Step 4 will be updated to refer to ANSI / RESNET / ICC Standard 301. To reflect this change the first sentence of Step 4 will be updated as follows: “Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with the on-site inspection procedures for minimum rated features of an EPA-recognized VOO in ANSI / RESNET / ICC Standard 301, Appendix B.”</p>
01009	11/11/2020	Pacific Program Requirements (Version 3, Rev. 10)	Refinement	<p>Step 4 – Requirement to submit homes to an HCO and follow other oversight protocols</p> <p>Issue: While Step 4 references the requirement to “register” homes, it does not explicitly mention the need to follow all oversight protocols of a Home Certification Organization (HCO). The appropriate reference to ensure all oversight protocols are followed is the ENERGY STAR Certification System, which establishes the certification policies and procedures required of an HCO.</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Step 4 will be updated with a reference to the ENERGY STAR Certification System and examples of applicable oversight protocols. To reflect these changes the second to last sentence in the first paragraph of Step 4 will be updated as follows: “Finally, <u>submit the home to the HCO for final certification and follow the HCO’s certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting)</u> register the rated home with the same EPA-recognized VOO.”</p>
00983	11/11/2020	Pacific Program Requirements (Version 3, Rev. 10)	Refinement	<p>Exhibit 4 – Removal of rows with old permit dates</p> <p>Issue: The Exhibit contains implementation timelines for Versions and Revisions that are relatively old and likely not applicable to homes being certified now.</p> <p>Resolution: For conciseness and clarity, all rows for Version or Revision updates older than 1/1/2019 will be deleted.</p>
01010	11/11/2020	Pacific Program Requirements (Version 3, Rev. 10)	Refinement	<p>Footnote 11 – Sampling protocols and providers</p> <p>Issue: Partners identified that Footnote 11 refers to “sampling providers”, which is a term used by RESNET but not defined in an industry standard. It was also identified that Footnote 11 could be modified to more accurately reflect the ENERGY STAR Certification</p>

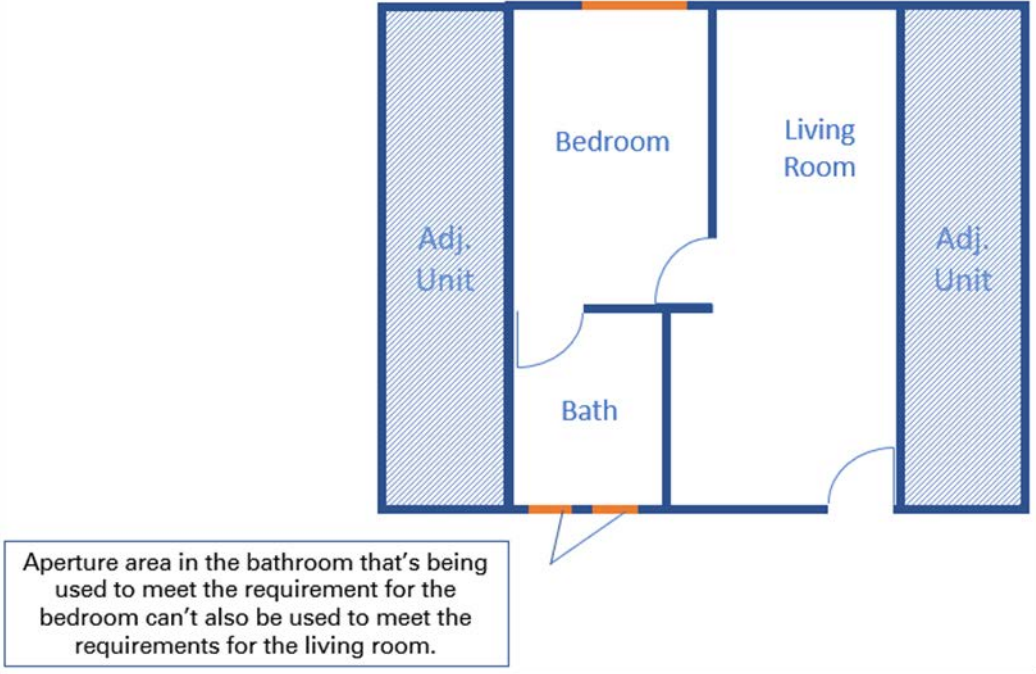
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				<p>System, which establishes the specific eligibility criteria, policy requirements, and certification procedures required of a Home Certification Organization (HCO).</p> <p>Resolution: To ensure consistency with the ENERGY STAR Certification System, Footnote 11 will be revised to use the term “sampling protocol” instead of “sampling provider.”</p> <p>To reflect these changed Footnote 11 will be updated as follows:</p> <p>“Raters who operate under an <u>HCO with a Sampling Protocol</u> Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated “Rater Verified” using an <u>HCOVOC-approved Sampling Protocol</u> sampling protocol. No parties other than Raters are permitted to use sampling. All other items shall be verified for each certified home. For example, no items on the HVAC Commissioning Checklist are permitted to be verified using a <u>sampling</u> Pprotocol.”</p>
01032	11/11/2020	Pacific Program Requirements (Version 3, Rev. 10)	Change	<p>Footnote 16 – Continued use of Rev. 08, 09, and 10 HVAC Design Report</p> <p>Issue: Due to the effort required to collect the HVAC Design Report, partners have asked whether previously collected Rev. 08, Rev. 09 and Rev. 10 HVAC Design Reports can continue to be used after the release of the next Revision of the program requirements, so long as no aspect of the system design changes.</p> <p>Resolution: Because the next Revision of the program checklists will not require collection of any additional information or impose any new requirements, and will maintain or increase compliance tolerances, a design documented using Rev. 08, Rev. 09 or Rev. 10 of the National HVAC Design Report would, by definition, meet the requirements of Rev. 11.</p> <p>Therefore, previously collected Rev. 08, Rev. 09, or Rev. 10 National HVAC Design Reports will be permitted to be used after the release of the next Revision of the program requirements, so long as no aspect of the building design changes.</p> <p>To reflect this change, Footnote 16 will be updated as follows:</p> <p>“Homes certified under Rev. 11 of the program requirements are permitted to use either Rev. 08, 09, 10, or 11 of the National HVAC Design Report.”</p>
00976	11/11/2020	Caribbean & Pacific Rater Design Review Checklist (Version 3, Rev. 10)	Refinement	<p>Item 1.2, 2.1, & 2.2 – Addition of footnote clarifying Caribbean exemptions</p> <p>Issue: Homes certified through the Caribbean Program Requirements, Version 3, are exempt from several requirements within this document. These exemptions are listed in Exhibit 2 of the Caribbean Program Requirements, Version 3, but not in the Caribbean and Pacific Rater Design Review Checklist itself, which may lead Partners to overlook them.</p> <p>Resolution: To improve clarity, a new footnote will be added to Item 1.2, 2.1, and 2.2 as follows:</p>

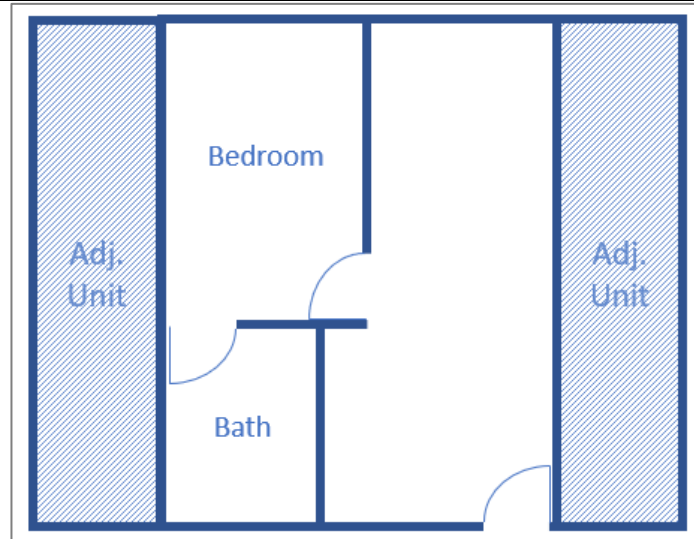
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				<p>“Homes certified through the Caribbean Program Requirements, Version 3, are exempt from Items 1.2 and 2.2 of this checklist. In addition, these homes are exempt from completing Section 3, 4, and 5 of the National HVAC Design Report.”</p>
00961	08/07/2020	Caribbean & Pacific Rater Design Review Checklist (Version 3, Rev. 10)	Clarification	<p>Item 4.1.1 – Only screened portions of exterior doors count as operable aperture area</p>
				<p>Issue: Partners have asked whether the entire opening of an exterior door, or just the subset that is screened, can be used in the calculation of operable aperture area for primary living areas.</p>
				<p>Resolution: Per Item 4.1.4, insect screens must be specified for all components that contribute to the operable aperture area. Therefore, only the screened portion of exterior doors is permitted to be used when calculating the operable aperture area. For example, if the exterior door is partially screened or if there is a screen door in addition to the main exterior door, then the screened portion can contribute to the operable aperture area.</p>
00959	08/07/2020	Caribbean & Pacific Rater Design Review Checklist (Version 3, Rev. 10)	Clarification	<p>Item 4.1.1 – Aperture area cannot be ‘double-counted’</p>
				<p>Issue: This Item requires, in part, that for all primary living areas, operable aperture areas totaling a minimum of 12% of the floor area of the room be specified in that room. While implied, the program requirements do not currently state explicitly that aperture area used to meet the requirements for one primary living area shall not also be used to meet the requirements for a second primary living area (i.e., the aperture area cannot be double-counted).</p>
				<p>Resolution: To prevent potential confusion or misinterpretation, this intent will be explicitly stated. The intent is illustrated below:</p>

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				 <p>Aperture area in the bathroom that's being used to meet the requirement for the bedroom can't also be used to meet the requirements for the living room.</p> <p>To reflect this intent, the following sentence will be added to the beginning of Footnote 14, which is referenced by Item 4.1.1: "Aperture area used to meet the requirements for one primary living area shall not also be used to meet the requirements for a second primary living area."</p>
00960	08/07/2020	Caribbean & Pacific Rater Design Review Checklist (Version 3, Rev. 10)	Clarification	<p>Item 4.1.3 – Apertures allowed outside primary living area in some cases</p> <p>Issue: Partners have asked whether this Item, which defines requirements for aperture location, requires apertures to be on walls that directly bound the primary living area and, if not, whether additional requirements apply to those outside the primary living area.</p> <p>Apertures are likely to be most effective if they're located on walls that directly bound the primary living area. However, architectural constraints may make this difficult to achieve. For example, consider the attached dwelling unit in Exhibit 1, which only has exterior walls on the front and the back.</p> <p style="text-align: center;">Exhibit 1</p>

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If apertures must be on walls that directly bound the primary living area, then there is no way to meet this Item unless the design incorporates wing walls, which stakeholders have indicated are not common practice.

Allowing apertures to be located on walls outside the primary living area would ease compliance while not necessarily compromising the original intent of the requirement, to promote effective natural ventilation.

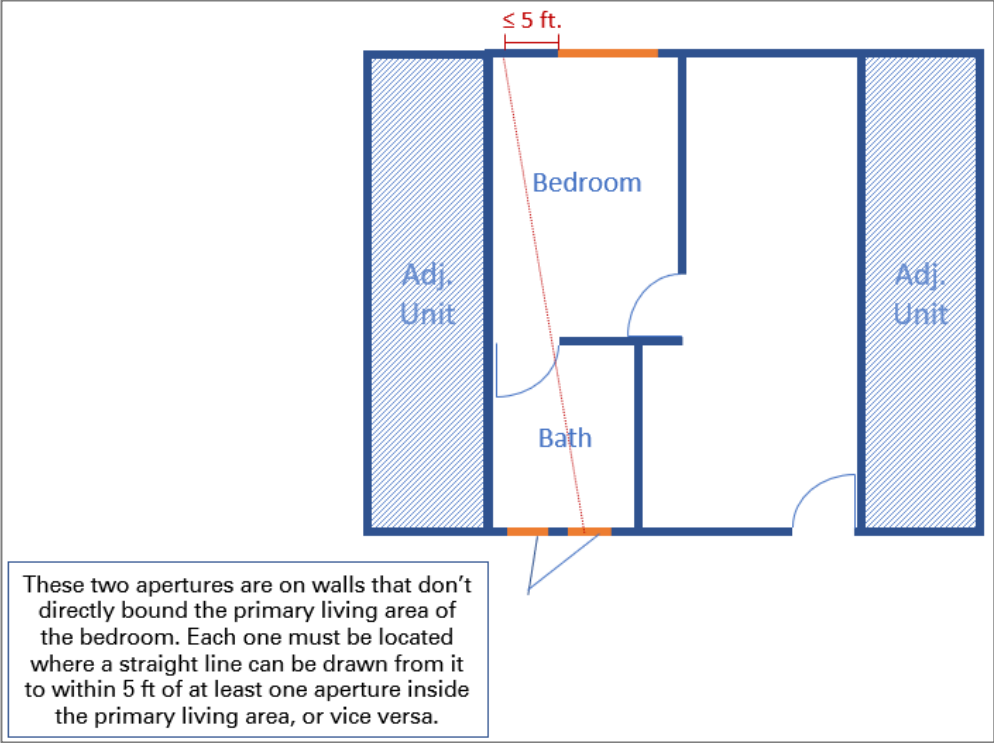
Resolution: Clarifying the requirements for aperture location will promote consistent implementation of the program requirements, while adding a pragmatic allowance that does not alter the original intent of the requirements.

Apertures will be allowed to be located outside the primary living area if they meet two prerequisites that promote effective natural ventilation. Namely, the apertures outside the primary living area must be effectively aligned with at least one aperture inside the primary living area. More effective ventilation should be promoted by not allowing circuitous or obstructed routes between apertures.

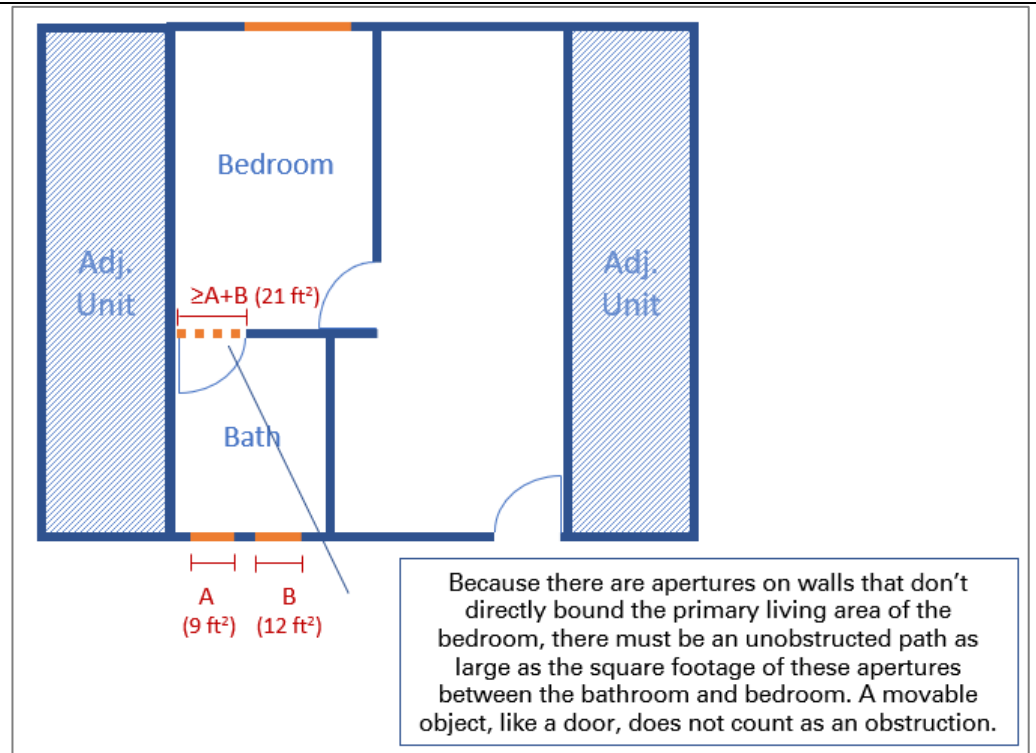
Specifically, this intent can be conveyed by recommending, but not requiring, apertures to be on walls that directly bound the primary living area.

Furthermore, apertures outside the primary living area can be required to be “effectively aligned” with at least one aperture inside the primary living area, where an aperture is “effectively aligned” if a straight line can be drawn from one aperture to within 5 ft. of the other aperture. See Exhibit 2.

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				<p style="text-align: center;">Exhibit 2</p>  <p style="text-align: center;"> $\leq 5 \text{ ft.}$ Bedroom Bath Adj. Unit Adj. Unit </p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>These two apertures are on walls that don't directly bound the primary living area of the bedroom. Each one must be located where a straight line can be drawn from it to within 5 ft of at least one aperture inside the primary living area, or vice versa.</p> </div> <p>Finally, if the apertures are on walls that don't directly bound the primary living area, then an unobstructed path will be required between the primary living area and those apertures that is at least as large as the square footage of those apertures. See Exhibit 3.</p> <p style="text-align: center;">Exhibit 3</p>
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While implied, if the apertures are outside the primary living area, then only the floor area of the primary living area needs to be included when calculating the required operable aperture area; the floor area of adjacent spaces do not need to be included.

To reflect this intent, a new footnote will be added before existing Footnote 16, and will be referenced by Item 4.1.3, as follows:

“Apertures are recommended, but not required, to be on walls that directly bound the primary living area. Apertures outside the primary living area shall be “effectively aligned” with at least one aperture inside the primary living area. An aperture is “effectively aligned” if a straight line can be drawn from one aperture to within 5 ft. of the other aperture. If the apertures are on walls that don't directly bound the primary living area, then there shall be an unobstructed path between the primary living area and those apertures that is at least as large as the square footage of those apertures. See energystar.gov/apertures for additional guidance.”

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00977	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Refinement	Section 1, Items 2.2, 2.4, 2.5, & Section 5 – Addition of footnote clarifying Caribbean exemptions
				Issue: Homes certified through the Caribbean Program Requirements, Version 3, are exempt from several requirements within this document. These exemptions are listed in Exhibit 2 of the Caribbean Program Requirements, Version 3, but not in the Caribbean and Pacific Rater Field Checklist itself, which may lead Partners to overlook them.
				Resolution: To improve clarity, a new footnote will be added to Section 1; Items 2.2, 2.4, and 2.5; and Section 5 as follows: “Homes certified through the Caribbean Program Requirements, Version 3, are exempt from Section 1, Items 2.2, 2.4, and 2.5; and Section 5 of this checklist.”
00956	08/07/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Clarification	Item 2.2 – Bedroom pressure testing for HVAC systems with multiple zones
				Issue: A partner has asked whether bedroom pressure testing for an HVAC system with multiple zones should be conducted with all zones on simultaneously, or for each zone individually. It is difficult to predict which condition would produce higher pressure differentials, and it may be unnecessarily burdensome to require testing each zone individually without a clear benefit.
				Resolution: To improve the consistency and simplicity of the program requirements, when bedroom pressure testing an HVAC system with multiple zones, Raters are only required to test all zones simultaneously and are not required to test each zone individually. Footnote 7, referenced by this Item, will be updated as follows: “Item 2.2 does not apply to ventilation ducts, exhaust ducts, or non-ducted systems. For an HVAC system with a multi-speed fan, the highest design fan speed shall be used when verifying this requirement. <u>For an HVAC system with multiple zones, this requirement shall be verified with all zones calling for heating or cooling simultaneously; additional testing of individual zones is not required.</u> When verifying this requirement, doors separating bedrooms from the main body of the house (e.g., a door between a bedroom and a hallway) shall be closed and doors to rooms that can only be entered from the bedroom (e.g., a closet, a bathroom) shall be open. As an alternative to the ± 3 Pa limit, a Rater-measured pressure differential ≥ -5 Pa and $\leq +5$ Pa is permitted to be used for bedrooms with a design airflow ≥ 150 CFM. The Rater-measured pressure shall be rounded to the nearest whole number to assess compliance.”
00934	05/01/2020	Caribbean & Pacific Rater Field	Clarification	Item 2.2 – Bedrooms without doors exempted from bedroom pressure-balancing test
				Issue: Partners have asked for clarification on Item 2.2, which in part defines the requirements for bedroom pressure-balanced testing, in the instance that no door has been installed between

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		Checklist (Version 3, Rev. 10)		<p>the bedroom and the main body of the house. In the absence of a door, the test would provide little to no value because there would be no pressure differential.</p> <p>Resolution: Compliance with this Item can be assumed without the need for a Rater-measured pressure differential when there is no door separating the bedroom from the main body of the house and it is apparent to the rater that there is no intention of a door being installed (e.g., no door hinge or latch mortise).</p>
01043	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Change	<p>Item 2.4 & 2.5 – Ventilation ducts connected to heating or cooling system must be tested for leakage; other ducts not subject to leakage tests must be inspected</p> <p>Issue: These Items generally require testing of duct leakage for heating, cooling, and balanced ventilation ducts. One of the referenced Footnotes exempts balanced ventilation ducts from testing if they're not connected to the space heating or cooling system, but instead requires a visual inspection.</p> <p>Partners have asked how these requirements apply to ducts of other dwelling unit mechanical ventilation system types (e.g., supply ventilation systems).</p> <p>Resolution: While not stated in the Footnote, it was the intent of the program to require testing of any ventilation duct connected to the heating and cooling system serving the dwelling unit. Furthermore, the intent was to require visual inspection for any duct system exempted from testing. This intent will be clarified in Footnote 9, as follows: “Items 2.4 and 2.5 generally apply to the ducts of space heating, space cooling, and dwelling unit mechanical ventilation systems. However, visual inspection is permitted in lieu of testing for a dwelling unit mechanical ventilation system not connected to the space heating or space cooling system, regardless of the number of dwelling units it serves. In such cases, a Rater shall visually verify that all seams and connections are sealed with mastic or metal tape and all duct boots are sealed to floor, wall, or ceiling using caulk, foam, or mastic tape. For duct systems requiring testing, duct leakage shall be determined and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the Effective Date and Transition Period End Date defined by RESNET. RESNET interpretations of Standard 380 shall also be followed. Leakage limits shall be assessed on a per-system, rather than per-home, basis.”</p>
01059	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Refinement	<p>Section 3 – Ventilation terminology aligned with ANSI / RESNET / ICC 301-2019</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Currently, this Section header uses the term “Whole-House Mechanical Ventilation System”. In contrast, ANSI / RESNET / ICC 301-2019 uses the defined term, “Dwelling Unit Mechanical Ventilation System”. Furthermore, this section applies to not</p>

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				<p>just ventilation systems, but also to inlets connected to a ducted return of the HVAC system, regardless of intent. This could be emphasized within the header.</p> <p>Similarly, there are other uses of the term “whole-house ventilation” within the document that could be updated for the same reason.</p> <p>Resolution: To improve clarity and conciseness of the program requirements, the Section header will be revised to read: “Dwelling Unit Mechanical Ventilation Systems (“Vent System”) & Inlets in Return Duct”.</p> <p>With this change, any instance of the term “whole-house ventilation” will be updated to use the same terminology as the revised header, either dwelling unit mechanical ventilation system or vent system.</p> <p>In addition, a Footnote will be added with the definition of this term from ANSI / RESNET / ICC 301-2019, as follows:</p> <p>“As defined by ANSI / RESNET / ICC Std. 301-2019, a Dwelling Unit Mechanical Ventilation System is a ventilation system consisting of powered ventilation equipment such as motor-driven fans and blowers and related mechanical components such as ducts, inlets, dampers, filters and associated control devices that provides dwelling-unit ventilation at a known or measured airflow rate.”</p> <p>A second Footnote will be added to the header to emphasize that Item 3.3 applies to all inlets connected to a ducted return, as follows:</p> <p>“Item 3.3 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return.”</p>
01057	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Refinement	<p>Item 3.2 – Improved example of ventilation control that must be labeled</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. This Item requires that ventilation override controls be labeled if their function is not obvious. One example of a control that must be labeled is provided in the Item: “a standalone wall switch”. This example could be more clearly stated as “a toggle wall switch”.</p> <p>Resolution: To improve clarity of the program requirements, Item 3.2 will be revised, as follows:</p> <p>“A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that’s on the ventilation equipment).”</p>
01058	11/11/2020		Change	Item 3.3 – Enhanced requirements for ventilation inlets on return-side of HVAC system

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		<p>Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)</p>	<p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Currently, Item 3.3 requires in part that an outdoor air inlet connected to the return-side of the HVAC system be restricted when the system is “not in use”. The intent of this requirement is to restrict outdoor air when the ventilation system is in an off-cycle (which would not be applicable to continuous systems), and, if an occupant override has occurred.</p> <p>Furthermore, the intent is for a motorized damper to be used to restrict this airflow. This Item currently lists a motorized damper as one example of a compliant strategy, but in fact it is the only strategy that has been identified to date. As currently written, partners may mistakenly believe that other damper types, such a barometric damper, would also meet this intent. However, this would be incorrect because a barometric damper could be pulled open even when ventilation was not desired, simply from the pressure of the HVAC fan.</p> <p>In short, the intent of this Item could be clearer. Furthermore, partners have observed that air inlets on the return-side might be used as a dedicated source of air for an exhaust ventilation system (e.g., bath exhaust fan paired with a return-side inlet). This would be acceptable if the inlet could: a) automatically restrict airflow during ventilation off-cycles and occupant overrides, and; b) not bring in significantly more outdoor air than is being exhausted, which could happen because the inlet is closer to the powerful HVAC fan than the bath fan.</p> <p>Resolution: To improve clarity and expand the scope of this Item, it will be rewritten to capture these two requirements for return-side ventilation air inlets:</p> <ol style="list-style-type: none"> 1. Restrict airflow using a motorized damper during vent. off-cycle and occupant override. 2. Verify that the ventilation rate is \leq 15 CFM or 15% above the design value at the highest HVAC fan speed. <p>Regarding the second requirement, the Rater will have already satisfied this if the inlet is part of the ventilation system verified in Item 3.1 (e.g., an inline fan connected to the return-side of the HVAC system). If not previously measured, this new requirement will ensure that the HVAC fan does not draw in significantly more outdoor air than the ventilation design.</p> <p>With that said, as an alternative to measuring the airflow for this situation, a Constant Airflow Regulating (CAR) damper will be permitted to be used. CAR dampers are designed to limit the airflow going through them to a known rate, up to a relatively high static pressure such as 0.8 IWC. Therefore, installing such a damper would ensure that the program’s intent is met even without a measurement of the airflow.</p> <p>To reflect these changes, Item 3.3 will be revised as follows: “3.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check “N/A”):</p>
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				<p>3.3.1 Controls automatically restrict airflow using a motorized damper during vent. off-cycle and occupant override.</p> <p>3.3.2 Rater-measured vent. rate is \leq 15 CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 20.”</p> <p>To emphasize that Item 3.3 applies to all inlets connected to a ducted return, a new Footnote will be added, as follows:</p> <p>“Item 3.3 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return.”</p> <p>To provide examples of when the airflow must be restricted on the return-side outdoor air inlet, a new Footnote will be added to these items as follows:</p> <p>“For example, if an outdoor air inlet connected to a ducted return is used as a dedicated source of outdoor air for an exhaust ventilation system (e.g., bath fan), the outdoor airflow must be automatically restricted when the exhaust fan is not running and in the event of an override of the exhaust ventilation system.”</p> <p>To provide guidance on when and how to measure the airflow through the return-side outdoor inlet, and to add the alternative use of the CAR damper in lieu of measurement, a new Footnote will be added to these items as follows:</p> <p>“When assessing the ventilation rate, the highest HVAC fan speed applicable to ventilation mode shall be used (e.g., if the inlet only opens when the HVAC is in ‘fan-only’ mode, then test in this mode). If the inlet has a motorized damper that only opens when the local mechanical kitchen exhaust is turned on, then testing is not required.</p> <p>When required, the ventilation airflow through the inlet shall be measured and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under. As an alternative, measurement of the outdoor airflow can be waived if a Constant Airflow Regulating (CAR) damper with a manufacturer-specified maximum flow rate no higher than 15 CFM or 15% above the ventilation design value is installed on the inlet.”</p>
01060	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Change	<p>Item 3.5 – Allowance for continuous return-side systems; integration of HVAC fan operation limitations</p> <p>Issue: Partners have suggested several potential improvements to the dwelling unit mechanical ventilation system requirements. Item 3.3 currently requires, in part, that no outdoor air inlets be connected to the return-side of the HVAC system, unless controls are installed to operate intermittently. The intent of this requirement is to limit energy consumption by not allowing continuous operation of the HVAC fan.</p>

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				<p>When this requirement was first drafted, the only common ventilation system utilizing an inlet to the return-side of the HVAC system was one that used the HVAC fan itself as the primary ventilation fan. Since that time, the use of ventilation systems that don't use the HVAC fan as the primary ventilation fan have become more commonplace (e.g., ERV's, HRV's, and inline fans). These should be allowed to be connected to the return-side of the HVAC system, even if running continuously.</p> <p>Furthermore, some ventilation systems have the ability to control the HVAC fan even when the ventilation system has its own fan (e.g., an inline fan might turn on the HVAC fan for mixing). Even in these cases, the HVAC fan should not run continuously, to limit energy consumption.</p> <p>Resolution: To allow continuously-operating ventilation systems that are connected to the return-side of the HVAC system to be used, the language in Item 3.3 regarding intermittent operation will be removed. Furthermore, to group all efficiency requirements related to the HVAC fan in one Item, to prohibit the ventilation system controller from continuously operating the HVAC fan (regardless of whether the HVAC fan is the primary ventilation fan), and to improve conciseness, Item 3.5 will be revised, as follows:</p> <p>"3.5. If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM (4.7) or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours."</p> <p>In addition, to emphasize that the use of a the 'fan-on' setting of a thermostat is prohibited from being used as the ventilation controller (because it would operate the HVAC fan continuously), a new Footnote will be added to Item 3.5 as follows:</p> <p>"Note that the 'fan-on' setting of a thermostat would not be an acceptable controller because it would continuously operate the HVAC fan."</p>
01025	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Change	<p>Item 4.1 & Fn. 23 – Alternative kitchen exhaust rate for additional select homes</p> <p>Issue: Partners developing homes and buildings with extremely tight enclosures and balanced whole-dwelling ventilation and local mechanical exhaust systems have previously expressed difficulty meeting the program requirements for local mechanical kitchen exhaust, and an allowance has been provided to use a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3, if they are either a) PHIUS+ or PHI certified, or b) provide both dwelling-unit ventilation and local mechanical kitchen exhaust using a balanced system, and have a Rater-verified whole-building infiltration rate ≤ 0.05 CFM50 per sq. ft. of Enclosure Area, and a Rater-verified dwelling unit compartmentalization rate ≤ 0.30 CFM50 per sq. ft. of Enclosure Area if multiple dwelling units are present in the building.</p> <p>However, projects that pursue PHIUS+ or PHI certification but don't achieve the required infiltration limit of those programs are no longer eligible to use the 25 CFM kitchen exhaust allowance, even though they are still exceptionally tight. Because the final infiltration level is</p>

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				<p>only known near project completion, it is not feasible at that point to change the kitchen exhaust strategy. As a result, projects are not permitted to be certified, despite meeting and likely exceeding all program requirements except for the allowance to use reduced kitchen exhaust.</p> <p>Resolution: The current allowance to use a continuous kitchen exhaust rate of 25 CFM will be extended to homes that meet an infiltration limit of ≤ 1.0 ACH50 and provide both whole-dwelling ventilation and local mechanical kitchen exhaust using a balanced system. To reflect this change, the second to last sentence of Footnote 23 will be revised as follows:</p> <p>“As an alternative to Item 4.1, homes are permitted to use a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3, if they are either a) PHIUS+ or PHI certified, or b) provide both dwelling-unit ventilation and local mechanical kitchen exhaust using a balanced system, and have a Rater-verified whole-building infiltration rate ≤ 1.0 ACH50 or ≤ 0.05 CFM50 per sq. ft. of Enclosure Area, and a Rater-verified dwelling unit compartmentalization rate ≤ 0.30 CFM50 per sq. ft. of Enclosure Area if multiple dwelling units are present in the building.”</p>
01035	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Clarification	<p>Item 5.1 – Expanded options for making a filter in the attic accessible</p>
				<p>Issue: Footnote 26, referenced by Item 5.1, defines options for making a filter located in the attic accessible. Several additional options have been identified that would meet the original intent, including the use of a pull-down ladder, a door, or a wall access panel (e.g., through a knee wall). Adding these options would provide partners with more flexibility to meet the requirement cost-effectively.</p>
				<p>Resolution: Several additional options for making filters located in the attic accessible will be added to the last sentence in Footnote 26, as follows:</p> <p>“HVAC filters located in the attic shall be considered accessible to the occupant if either 1) drop-down stairs, a pull-down ladder, or door provide access to attic and a permanently installed walkway has been provided between the attic access location and the filter or 2) the filter location enables arm-length access from a portable ladder without the need to step into the attic and the height of the ceiling access panel or the bottom of the wall access panel where access is provided is ≤ 12 ft.”</p>
01011	11/11/2020	Caribbean & Pacific Rater Field Checklist (Version 3, Rev. 10)	Refinement	<p>Item 6.3 & Footnote 30 – Referencing industry standards for combustion safety testing</p>
				<p>Issue: Partners identified that Item 6.3 and Footnote 30 refer to both “Section 802 of RESNET’s Standards” (Mortgage Industry National Home Energy Rating System Standards) and ANSI/ACCA 12 QH-2014. Partners also noted that the Mortgage Industry National Home Energy Rating System Standards are a proprietary standard.</p>
				<p>Resolution: Through reviewing Section 802 and ANSI/ACCA 12 QH-2014, EPA determined that the requirements of Item 6.3 and Footnote 30 could be retained while only</p>

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				<p>referencing ANSI/ACCA 12 QH-2014. Therefore, to ensure consistency with industry standards, Item 6.3 and Footnote 30 will be revised as follows:</p> <p>“If unvented combustion appliances other than cooking ranges or ovens are located inside the home’s pressure boundary, the Rater has followed Section 802 of RESNET’s Standards, encompassing ANSI/ACCA 12 QH-2014, <u>Section 3.2.2</u>, Appendix A, Sections <u>A2.2.6</u>, <u>A3 (Carbon Monoxide Test)</u>, and A4, and verified the equipment meets the limits defined within.”</p> <p>“This item only applies to furnaces, boilers, and water heaters located within the home’s pressure boundary. Naturally drafted equipment is allowed within the home’s pressure boundary in Climate Zones 1-3 if the Rater has followed Section 802 of RESNET’s Standards, encompassing ANSI / ACCA 12 QH-2014, <u>Section 3.2.2</u>, Appendix A, Sections <u>A2.2.6</u>, <u>A3 (Carbon Monoxide Test)</u>, and A4 (Depressurization Test for the combustion Appliance Zone), and verified that the equipment meets the limits defined within.”</p>
01019	11/11/2020	Pacific ERI Target Procedure (Version 3, Rev. 10)	Clarification	<p>Item 1 – Defining timeline for adopting ANSI / RESNET / ICC 301 updates in alignment with the HCO framework</p>
				<p>Issue: The terms “Effective Date” and “Transition Period End Date” are currently used when defining the timeline for adopting ANSI / RESNET / ICC Standard 301 Addenda and Normative Appendices.</p> <p>Since the last Revision, the Home Certification Organization (HCO) framework has been completed, which addresses this topic. Therefore, the language in the ERI Target Procedure can be simplified by referencing the HCO framework.</p>
				<p>Resolution: In order to align with the HCO framework, Item 1 will be updated as follows:</p> <p>“The ERI value shall be calculated using ANSI / RESNET / ICC Standard 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the Home Certification Organization (HCO) that the home is being certified under, with approved exceptions listed at www.energystar.gov/ERIEExceptions.”</p>
01048	11/11/2020	Pacific ERI Target Procedure (Version 3, Rev. 10)	Change	<p>Heating System & Cooling System Sections: Grade III installation quality</p>
				<p>Issue: With the development of ANSI / RESNET / ACCA 310, forced-air HVAC systems now have the ability to have their installation quality graded. As a result, the ERI Target Procedure needs to be updated to indicate how the forced-air HVAC systems specified within should be configured.</p>
				<p>Resolution: The forced-air HVAC systems will be configured with Grade III, so that the ENERGY STAR ERI target should remain approximately the same as before the implementation of ANSI / RESNET / ACCA 310. This is preferable to configuring the systems</p>

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				<p>with Grade I or II; under that scenario, dwelling units using Track B would be required to select new efficiency measures to meet the new more stringent target, even though they're satisfying the program's requirement for quality-installed equipment.</p> <p>To reflect this change, a new row will be added to the Heating Systems Section, as follows: "Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for air-source heat pumps, also Grade III ref. charge."</p> <p>Similarly, the Cooling Systems Section will be updated to add a new row as follows: "Installation Quality: For forced-air HVAC systems, Grade III airflow and watt draw; for AC's & air-source heat pumps, also Grade III ref. charge."</p> <p>Because the Electric Auxiliary Energy of non-electric warm furnaces will be calculated using a new methodology under ANSI / RESNET / ACCA 310, which does not depend on capacity alone, the row in the Heating Systems Section that addresses this parameter will be revised by removing the phrase, "...using the capacity determined in this Section."</p> <p>Because the capacity of forced-air HVAC systems will be degraded by a Grade III installation, the capacity of the system needs to account for this, rather than being selected strictly in accordance with ACCA Manual S. To reflect this, the following sentence will be added to the row in the Heating Systems and Cooling Systems Section that addresses this parameter: "For forced-air HVAC systems, degraded capacity from Grade III install shall be accounted for using same methodology applied to Energy Rating Reference Home."</p>
00954	08/07/2020	Pacific ERI Target Procedure (Version 3, Rev. 10)	Change	Exhibit 1 – Dishwasher inputs updated
				Issue: With the adoption of ANSI/RESNET/ICC Standard 301-2019 Addendum A, the ENERGY STAR Reference Design Definition needs to be updated for dishwashers. Previously, Energy Factor was used to determine dishwasher efficiency; however, calculations in Addendum A require different metrics for inputs.
				<p>Resolution: The dishwasher configuration will be updated to align with the default values in Addendum A for a standard-capacity and compact-capacity ENERGY STAR dishwasher. Specifically, the row for dishwashers in the Lighting, Appliances, & Internal Gains section will be updated as follows: "Capacity Same as Rated Home, or Standard if no dishwasher in the Rated Home For Standard capacity: LER = 270, GHWC = \$22.23, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208 For Compact capacity: LER = 203, GHWC = \$14.20, Elec\$ = \$0.12, Gas\$ = \$1.09, LCY = 208"</p>
00967	11/11/2020	Pacific ERI Target Procedure (Version 3, Rev. 10)	Refinement	Footnote 4, 5, & 9 – Multiple footnotes updated to align with other program documents
				Issue: There are several differences between footnotes in this document, and similar footnotes in other program documents, and aligning the language used would improve consistency.

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				<p>Resolution: To reduce potential confusion several footnotes will be edited, created, or removed to align with the National ERI Target Procedure (Version 3.1, Rev. 10). The following changes will be made.</p> <p>Footnote 4 will be updated as follows: Any parameter not specified in this exhibit shall be <u>identical to the value entered for the Rated Home</u> set to "Same as Rated Home".</p> <p>A new footnote will be added after Footnote 4 that states: <u>"Same as Rated Home" indicates that the parameter shall be identical to the value entered for the Rated Home.</u></p> <p>Footnote 5 will be updated as follows: For informative purposes, assembly U-factors are meant to correlate to typical assemblies containing the nominal R-values as listed in 2009 IECC Table 402.1.1. Slab <u>insulation R-values represent nominal insulation levels; and assembly U-factors for foundations, floors, walls, and ceilings represent the overall assembly, inclusive of sheathing materials, cavity insulation, installation quality, framing, and interior finishes.</u></p> <p>Footnote 9 will be updated as follows: In the ENERGY STAR Reference Design, f Fuel type(s) shall be same as Rated Home, including any dual-fuel equipment where applicable. For a Rated Home with multiple heating, cooling, or water heating systems using different fuel types, the applicable system capacities and fuel types shall be weighted in accordance with the loads distribution (as calculated by accepted engineering practice for that equipment and fuel type) of the multiple systems.</p>
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