Phius Annotated: DOE Efficient New Homes Multifamily National Rater Checklist

As of March 19, 2026, multifamily projects pursuing Phius Certification are no longer required to earn Department of Energy (DOE) Efficient New Homes Multifamily Version 2 certification. This applies to all multifamily, dormitory, residence hall, supportive housing, senior housing and residential portions of mixed-use projects pursuing Phius Certification. Projects with a permit date[5] that precedes the cut-off date for older versions of the Department of Energy (DOE) Efficient New Homes program Version 1, Revision 7, 8 or 9 are still required to certify to the applicable program version.

This document uses strikethrough annotation (ie. ~~requirement~~) to distinguish the line items that are no longer required by Phius. Phius will continue to require 'unstruck' line items during the suspension of requiring DOE Efficient Multifamily New Homes certificates for multifamily projects.

Reference document:
DOE Efficient New Homes Multifamily Version 2 (Rev. 2) National Rater Checklist_0.pdf

Instructions for Phius Certification

All requirements outlined in section 1.5 On-Site Review of the Phius 2024 Guidebook apply.

a. *Exception*: In lieu of providing DOE Efficient New Homes certificates for multifamily, dormitory, residence hall, supportive housing and senior housing projects, Phius Verifiers must complete the checklist below and provide supportive documentation as needed.*

*All projects that qualify for DOE Efficient New Homes Multifamily Certification may certify to that program if they are able. The following checklist need not be completed and the requirements under Section 1.5 On-Site Review of the Phius 2024 Guidebook apply.

DOE Efficient New Homes – Multifamily National Rater Checklist Version 2 (Rev. 2)[1]

1. Partnership Status	Rater[2] Verified	Verified by[3] Builder or Licensed Professional	Exception or Alternate Used[4] (enter endnote #)
~~1.1 Rater has verified that builder is a registered DOE Efficient New Homes Builder Partner and identified the builder's Partner ID.[6]~~			
1.2 Rater has verified and documented that their company has a DOE Efficient New Homes partnership agreement using the Partner Locator.[7]	☐		
1.3 Rater(s) signing checklists attest that they have completed DOE-recognized training (according to the timeline posted on the program website) and are credentialed by a Home Certification Organization for DOE Efficient New Homes (HCO for DOE) or meet the credential requirements of a Multifamily Review Organization for DOE Efficient New Homes (MRO for DOE).	☐		
2. ENERGY STAR Baseline			
2.1 Unit is certified under ENERGY STAR Multifamily New Construction National Program Version 1.2 or 1.3.[8]	☐		
~~**3. Building Envelope**~~			
~~3.1a ERI and ASHRAE paths: ceiling, wall, floor, and slab insulation for the building meets specified efficiency levels from the 2021 IECC or 2024.[9,10]~~			
~~3.1b Prescriptive path: ceiling, wall, floor, and slab insulation for the building meets or exceeds specified DOE Efficient New Homes Multifamily Version 2 Target Dwelling Design insulation levels in dwelling units, and specified efficiency levels from the 2021 or 2024 IECC in common spaces.[10,11]~~			

~~3.2 Windows, skylights, and doors in dwelling units that are ≥ 50% glazed achieve an area-weighted average SHGC less than or equal to 0.23 (Climate Zone 1-2), 0.25 (Climate Zone 3), or 0.40 (Climate Zone 4A, 4B).~~[12, 13]			
4. Duct System			
4.1 All in-unit heating and cooling system distribution ducts and in-unit heating and cooling system air-handling equipment are located within the thermal and air barrier boundary.[14]	☐		☐
5. Hot Water Efficiency			
5.1 WaterSense labeled fixtures for dwelling unit showerheads and bathroom sink faucets and/or faucet accessories. [15]	☐		☐
5.2 Hot water delivery systems meet stored volume criteria (using Calculation or Field Verification method).[16]	☐		☐
5.3 In-dwelling unit recirculation systems use on-demand controls.[17]	☐		☐
5.4 Recirculating central hot water distribution systems meet pipe insulation thickness criteria.[18]	☐	☐	☐
6. Lighting & Appliances[19]			
6.1 All builder-supplied and builder-installed in-dwelling refrigerators,[20] dishwashers, clothes washers, and clothes dryers are ENERGY STAR certified.[21]	☐		☐
6.2 100% of in-dwelling, builder-installed lighting fixtures and lamps are LEDs.[22, 23]	☐		☐
6.3 All installed bathroom ventilation fans in dwelling units	☐		☐

are ENERGY STAR certified.[24]	☐		☐
7. Indoor Air Quality			
7.1 Certified under EPA Indoor AirPlus (Version 1 or Version 2 (Certified or Gold), determined by permit date).[25]	☐		
7.2 Either in-unit or centralized energy efficient balanced ventilation (HRV or ERV) is provided for dwelling units in Climate Zones 6, 7 and 8.[26, 27]	☐		
8. Renewable Ready			
8.1 Provisions of the DOE Efficient New Homes Multifamily PVReady Checklist Version 2 (Rev. 1) are completed.	☐		
9. Electric Vehicle Ready			
9.1 Provisions of the DOE Efficient New Homes Multifamily EVReady Checklist Version 2 (Rev. 1) are completed.	☐		
10. Heat Pump Water Heater Ready			
10.1 Dwelling units with in-unit water heaters meet minimum electric and space requirements.[28]	☐	☐	☐
10.2 Dwelling units with in-unit water heaters have a condensate drain installed within three feet of existing water heater.[29]	☐		☐
11. Heat Pump Space Heating Ready			
11.1 For units with in-unit combustion space heaters, individual branch circuit outlet is installed, or conduit is installed to facilitate future wiring for a heat pump installation. Circuit or conduit labeled as “For future heat pump.” [30]	☐	☐	☐

~~12. HVAC System~~[34]			
~~12a.1 For Prescriptive path projects: blower fan volumetric airflow is Grade I per ANSI/RESNET/ACCA 310.~~			
~~12a.2 For Prescriptive path projects: blower fan watt draw is Grade I per ANSI/RESNET/ACCA 310.~~			
~~12b.1 For Prescriptive path projects~~[32]~~: - Install a heat pump water heater OR - Achieve dwelling unit infiltration ≤ 0.20 CFM50/sf~~[33]			
~~12.3 For Prescriptive path projects: HVAC system meets or exceeds efficiency levels based on climate zone and system type as defined by Exhibit 2 of the DOE Efficient New Homes Multifamily Version 2 National Program Requirements.~~			
~~13. Energy Efficiency Threshold~~			
~~13.1 ERI Path: Dwelling unit's ERI value ≤ DOE Efficient New Homes Target Dwelling ERI.~~			
~~13.2 ASHRAE Path: Whole building model complies and meets DOE Efficient New Homes savings target.~~			
~~13.3 Prescriptive Path: Efficiency features described in the DOE Efficient New Homes Multifamily Version 2 Target Dwelling Design (Exhibit 2 of the National Program Requirements) are present in the Rated Unit as applicable.~~			
14. Photo Documentation			
14.1 ~~For ASHRAE and Prescriptive path projects,~~ photo documentation is collected that complies with the DOE Efficient New Homes Photo Documentation Guidance. ~~For ERI path projects, photo documentation is collected that complies with the Rater's HCO for DOE's documentation requirements.~~	☐		☐

Verification Signoffs		
Rater Name:	Rater Pre-Drywall Inspection[34] Date(s):	Rater Initials:
Rater Company Name:		
Rater Name:	Rater Final Inspection[35] Date(s):	Rater Initials:
Rater Company Name:		
Builder/Developer Employee:	Builder Inspection Date(s):	Builder Initials:
Builder/Developer Name:		
Licensed Professional:	LP Inspection Date(s):	LP Initials:

Endnotes:

[1] This Checklist applies to all dwelling units, sleeping units, common spaces, and garages (open or enclosed, shared or individual) in the building being certified, and where specified, parking lots. ~~These requirements apply to all compliance Paths, unless otherwise specified.~~ These requirements do not apply to parking garages or lots where the cost of the energy use of the parking garage or lot is not the responsibility of the Builder/Developer, Building Owner or Property Manager. ~~This Checklist does not apply to commercial or retail spaces, except in the ASHRAE path, if included in the energy model and the savings contribute to achieving the Performance Target. This Checklist does not apply to common spaces that are located in buildings on the property without any dwelling or sleeping units.~~ A 'sleeping unit' as defined by ANSI / RESNET / ICC 301, is a room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Where the term 'dwelling unit' is used in this Checklist, the requirement is also required of 'sleeping' units. The term 'building' refers to a structure that encompasses dwelling/sleeping units and (if present) common spaces, sharing one or more of the following attributes: a common street address, a common entrance or exit, central/shared mechanical systems, or structurally interdependent wall or roof systems. ~~Attached structures such as townhouses and 4-story two-unit structures (commonly referred to as "2-over-2s") may be considered separate buildings if they are divided by a vertical fire separation wall from the foundation to the roof sheathing and share none of the other attributes listed above.~~ A skyway or a breezeway that connects two structures is not considered a common entrance or exit. DOE adopts these parameters from the ENERGY STAR program, thus, building type eligibility for certification under DOE Efficient New Homes Multifamily Version 2 is the same as building type eligibility for certification under ENERGY STAR Multifamily New Construction Version 1.2.

[2] The Rater is defined as the person(s) completing the third-party verification required for certification. Raters must comply with the following:

- Raters are required to complete all training modules applicable to the DOE Efficient New Homes Multifamily Version 2 program specifications (according to the timeline posted on the program website) prior to completing a project's first inspection. Please note that required training modules are subject to change and Raters will have an allocated time period to complete additional or updated training modules as they become available. If a Rater does not successfully complete these modules before the end of the allocated time period, they may not certify DOE Efficient New Homes projects until the modules are complete.
- Raters must be
    a. a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / IECC 301, or
    b. credentialed by a Home Certification Organization for DOE Efficient New Homes (HCO for DOE), or

c. meet the credential requirements of a Multifamily Review Organization for DOE Efficient New Homes (MRO for DOE). Learn more and find a current list of HCOs and MROs for DOE here.

As stated in the National Program Requirements, Raters who operate under an MRO or HCO for DOE with a Sampling Protocol are permitted to verify any Checklist Item designated "Rater Verified" using an MRO or HCO for DOE-approved sampling protocol. No parties other than Raters are permitted to use sampling to complete this Checklist. Apartments participating in sampling must be within the same building, be the same construction type, and include the same envelope systems.

[3] At the discretion of the Rater, a licensed professional (LP) may verify those line items in this Checklist where a checkbox is in the "Licensed Professional" column. A Licensed Professional must be a Professional Engineer, Registered Architect, or other industry professional (e.g., electrician) in good standing and possess a current license. When exercised, the LP's responsibility will be formally acknowledged by the LP signing off on the checklist for the item(s) that they verified. However, if a quality assurance review indicates that Items have not been successfully completed, the Rater will be responsible for facilitating corrective action.

[4] If an exception for a program requirement or an alternate compliance method is used, enter the number of the corresponding endnote from this document that lists the exception or alternate.

[5] The 'permit date' is the date on which the permit authorizing construction of the building was issued. In cases where multiple permits are issued for a project (e.g., footing permits, building permits), the 'permit date' is the date on which the permit authorizing construction of the building, including the building features affecting energy use (e.g., insulation levels, window U/SHGC specifications, mechanical equipment efficiency), was issued. Alternatively, the application date of the permit authorizing construction of the building or the date that the Rater first verifies a DOE Efficient New Homes program provision requiring an on-site inspection (e.g., inspection of slab insulation) is allowed to be used as the 'permit date'.

~~[6] The DOE Efficient New Homes Partner ID number for the builder may be obtained from the builder or found on the Partner Locator tool on the DOE Efficient New Homes program website.~~

~~[7] Raters are only required to document the partnership status of their company once, for the first home that the Rater certifies for them.~~

[8] DOE Efficient New Homes Multifamily Version 2 requires certification under ESMFNC V1.2 or 1.3, including in states where ESMFNC V1.1 (or an earlier version) is effective. In states where the ENERGY STAR Residential New Construction program requires additional measures or efficiency levels beyond ESMFNC V1.2, these measures are also mandatory for compliance with the DOE Efficient New Homes Multifamily Version 2 National Program.

[9] ERI and ASHRAE path projects may use a whole-building 2021 IECC UA calculation or whole-building 2024 IECC TC calculation to demonstrate compliance with the mandatory envelope insulation requirements. When using the 2021 UA approach, the total building envelope UA must be less than or equal to the sum of UA values that result from multiplying the U factors specified in Table 3.1a below (for the 2021 IECC) by the same exterior assembly areas as the building being certified. When using the 2024 TC approach, the total building envelope TC must be less than or equal to the total TC resulting from using the assembly factors specified in Table 3.1a below for the 2024 IECC and Equation 4-1 in the Residential chapter of that code. ERI path projects may also meet the thermal backstop on a unit-by-unit basis but must document common space compliance using the Multifamily Workbook.

Table 3.1a: Mandatory Envelope Insulation Requirements for ERI and ASHRAE Path Projects

Space Type	**Opaque assemblies (including opaque doors and opaque spandrel panels)**	**Windows and glazed doors (except Class AW)**	**Class AW windows and glazed doors**	**Skylights**
Mandatory Building Envelope Requirements, 2021 IECC UA Option (Table references found in the 2021 IECC)				
Dwelling Units	Table R402.1.2[a] or Table C402.1.4 (Group R)[b]	Table R402.1.2	Table C402.4	Table C402.4
Common Spaces	Table R402.1.2[a] or Table C402.1.4 (All Other)[c]		**ERI path**: DOE Efficient New Homes Reference Design (Exhibit 2) **ASHRAE path**: Table C402.4 Mandatory Building Envelope Requirements, 2024 TC Option (Table references found in	
Mandatory Building Envelope Requirements, 2024 TC Option (Table references found in the 2024 IECC)				
Dwelling Units	Table R402.1.2[a] or Table C402.1.4 (Group R)[b]	Table R402.1.2	Table C402.5	Table C402.5
Common Spaces	Table R402.1.2[a] or Table C402.1.4 (All		**ERI path**: DOE Efficient New Homes Reference	

	Other)[c]		Design (Exhibit 2) **ASHRAE path**: Table C402.5	

[a] For steel-frame ceilings, walls, and floors, use 2021 IECC Table R402.2.6.

[b] The same chapter must be used for all opaque dwelling unit envelope components.

[c] The same chapter must be used for all opaque common space envelope components.

[10] Compliance notes and alternatives:

a. The calculations shall be done using a method consistent with the ASHRAE Handbook of Fundamentals and shall include the thermal bridging effects of framing materials. The calculation for a steel-frame envelope assembly shall use the ASHRAE zone method or a method providing equivalent results, and not a series-parallel path calculation method.

b. Where documenting UA within the workbook, F factors and slab perimeter lengths will be used in place of U-factors and areas.

c. The 2021 UA or 2024 TC calculation (and energy model) for the dwelling unit must accurately reflect all envelope details assessed in Items 3.1 through 3.6 of the ESMFNC National Rater Field Checklist.

d. If no NFRC rating is noted on a window or in its product literature (e.g., for site-built fenestration), select the U-factor from Tables 4 and 10, respectively, in 2013 ASHRAE Fundamentals, Chapter 15. Select the highest U-factor among the values listed for the known window characteristics (e.g., frame type, number of panes, glass color, and presence of low-e coating).

e. In jurisdictions designated by a code official as having Very Heavy Termite Infestation, the slab edge insulation value and depth shall be adjusted in the target UA or TC calculation for all paths. The slab insulation level and depth used in the UA or TC limit calculation and the energy model shall be set to the insulation level and depth found in the Rated Dwelling Unit. However, these projects are still required to achieve the DOE Efficient New Homes Target ERI, which assumes the use of slab edge insulation per Exhibit 2.

[11] Prescriptive path projects may meet these requirements in one of two ways. The calculations below are integrated into the ENERGY STAR Multifamily Workbook with DOE Efficient New Homes addenda, which must be used to demonstrate compliance with this requirement for Prescriptive path projects.

(1) Meet the requirements for all individual building envelope components using the U or R method:

- When using the 2021 IECC for common spaces, equivalent R-values to the U-factors provided for dwelling units in Exhibit 2 may be taken from the 2021 IECC, Table R402.1.3. When using R-values to demonstrate compliance for steel-frame assemblies, the steel-frame equivalent R-value from Table 402.2.6 must be used.

- *Note: When individual U factors are used, each component must have a U-factor less than or equal to what is prescribed by the table below. When individual R values are used, each component must have an R-value greater than or equal to what is prescribed by the references in the above bullets.*

(2) Meet the requirements by using the whole building UA or TC. When using the UA or TC method, the as-built UA shall be less than or equal to the target UA or TC. When using the 2021 UA approach, the total building envelope UA must be less than or equal to the sum of UA values that result from multiplying the U factors specified in the table below for the 2021 IECC by the same exterior assembly areas as the building being certified. When using the 2024 TC approach, the total building envelope TC must be less than or equal to the total TC resulting from using the assembly factors specified below for the 2024 IECC and Equation 4-1 in the Residential chapter of that code.

Table 3.1b: Mandatory Envelope Insulation Requirements for Prescriptive path projects

Space Type	Opaque assemblies (including opaque doors and opaque spandrel panels)	Windows and glazed doors (except Class AW)	Class AW windows and glazed doors	Skylights
Mandatory Building Envelope Requirements, 2021 IECC UA Option (Table references found in the 2021 IECC)				
Dwelling Units	DOE Efficient New Homes Reference Design (Exhibit 2)	DOE Efficient New Homes Reference Design (Exhibit 2)	DOE Efficient New Homes Reference Design (Exhibit 2)	Table C402.4
Common Spaces	Table R402.1.2[a] or Table C402.1.4 (All Other)[e]	ENERGY STAR MFNC 1.2 Reference Design		
Mandatory Building Envelope Requirements, 2024 TC Option (Table references found in the 2024 IECC)				
Dwelling Units	DOE Efficient New Homes Reference Design (Exhibit 2)	DOE Efficient New Homes Reference Design (Exhibit 2)	DOE Efficient New Homes Reference Design (Exhibit 2)	Table C402.5
Common Spaces	Table R402.1.2[a] or Table C402.1.2 (All Other)[e]	ENERGY STAR MFNC 1.2 Reference Design		

[a] For steel-frame ceilings, walls, and floors, use 2021 IECC Table R402.2.6.

[b] The same chapter must be used for all opaque dwelling unit envelope components.

[c] The same chapter must be used for all opaque common space envelope components.

[12] Exceptions:

a. Fenestration used as part of a passive solar design is exempt from the SHGC requirements and may be excluded from area-weighted average. fenestration must be facing within 45 degrees of true south and directly coupled to thermal storage mass that has a heat capacity > 20 btu / ft3x °F and provided in a ratio of at least 3 sq. ft. per sq. ft. of south facing windows. Generally, thermal mass materials will be at least 2 in. thick.

b. In Phius or PHI certified homes, where triple-glazed window assemblies with thermal breaks/spacers between the panes are used, such windows meet the intent of Item 3.2 and may be excluded from the area-weighted average SHGC.

c. Structural dwelling unit windows and doors that are classified as "Class AW" under the North American Fenestration Standard may use the following SHGC values:

Climate Zone	1-3	4A, 4B	4C, 5-8
Class AW SHGC	≤ 0.25	≤ 0.40	Any

[13] If no NFRC rating is noted on the window or in product literature (e.g., for site-built fenestration), select the SHGC value from Tables 4 and 10, respectively, in 2013 ASHRAE Fundamentals, Chapter 15. Select the highest SHGC value among the values listed for the known window characteristics (e.g., frame type, number of panes, glass color, and presence of low-e coating). Alternatively, where the U-factor is determined in accordance with NFRC 100 by a laboratory accredited by a nationally recognized accreditation organization, such as the NFRC, documentation provided by the laboratory or manufacturer listing the assembly U-factor and SHGC can be used in lieu of NFRC labels.

[14] Exceptions and alternative compliance paths to this requirement are:

a. Up to 10 ft. of total duct length is permitted to be outside of the thermal and air barrier boundary. Jump ducts are not included as part of this duct length and are covered by exception (d).
b. Ducts (but not air handlers) may be located in a vented attic if minimum R-8 duct insulation is used, duct leakage to outdoors is measured ≤ 3 CFM25 per 100ft2 of conditioned floor area, and:
    i. In Moist (A) climate zones (per 2021 IECC Table R301.1), an additional 1.5 in. (min.) of closed-cell spray foam encapsulates the ducts and ductwork is buried under 2 in. (min.) of blown-in insulation; OR
    ii. In Dry (B) and Marine (C) climate zones (per 2021 IECC Table R301.1, ductwork is buried under at least 3.5 in. of blown-in insulation.

c. Ducts which meet the criteria for "Ducts Located in Conditioned Space" as defined by the 2021 IECC Section R403.3.2.
d. Jump ducts which do not directly deliver conditioned air from the heating/cooling equipment may be located in attics if all joints, including boot-to-drywall, are air sealed and the jump duct is fully buried under the attic insulation.
e. Ducts and air-handling equipment associated with dedicated outdoor air systems (DOAS), which may also provide supplemental heating and cooling, are permitted to be outside of the building's thermal and air barrier boundary.

This requirement does not apply to equipment or ductwork that only provides ventilation, including make-up air systems. This requirement does not apply to air handling equipment or ductwork serving multiple dwelling units. This requirement does not apply to through-wall systems [i.e., packaged terminal heat pumps (PTHPs), packaged terminal air conditioners (PTACs), and vertical terminal air conditioners (VTACs)].

[15] WaterSense labelling of products may be verified in one of two ways:

a. A cut sheet for the installed product indicates that it is WaterSense labeled and field verification shows that the installed product is the one described on the cut sheet.
b. The installed product can be found in the most recent WaterSense Product Search tool (https://lookforwatersense.epa.gov/products/) and field verification shows that the installed product matches the product described in the search tool.

[16] To minimize water wasted while waiting for hot water and water heating energy, the hot water distribution system shall store no more than 1.8 gallons (6.8 liters) of water in any piping/manifold between the hot water source (e.g., central or in-unit hot water tank, central or in-unit recirculation loop) and any in-dwelling hot water fixture. This provision applies to in-dwelling unit plumbing systems and central hot water distribution systems. Indwelling unit system options include manifold-fed systems; structured plumbing systems; core plumbing layouts, and recirculation systems. This provision does not apply to fixtures in dwelling unit bathrooms without a shower or bathtub.

To verify that the distribution system stores no more than 1.8 gallons (6.8 liters), raters shall either use the Calculation method or the Field Verification method. In the Calculation method, the rater shall calculate the stored volume between the hot water source and the furthest fixture from the source using the piping or tubing inside diameter and the length of the piping/tubing. In the case of recirculation systems (either within the dwelling or central systems), the 1.8 gallon (6.8 liter) storage limit shall be measured from the point where the branch feeding the furthest fixture branches off the recirculation loop, to the fixture itself. An Excel-based tool is available on the DOE Efficient New Homes website for this calculation.

Using the Field Verification method, no more than 2 gallons (7.6 liters) of water shall be collected from the hot water fixture before hot water is delivered. This accounts for any water stored in the fixture in addition

to the 1.8- gallon limit on pipe storage. Only the fixture with the greatest stored volume between the fixture and the hot water source (or recirculation loop) needs to be tested. To field-verify that the system meets the 2-gallon (7.6 liter) limit, raters shall first initiate operation of recirculation systems, if present, and let such systems run for at least 40 seconds. Next, a bucket or flow measuring bag (pre-marked for 2 gallons) shall be placed under the hot water fixture. The hot water shall be turned on completely and a digital temperature sensor used to record the initial temperature of the water flow. Once the water reaches the pre-marked line at 2 gallons, the water shall be turned off and the ending temperature of the water flow (not the collection bucket) shall be recorded. The temperature of the water flow must increase by ≥ 10 °F in comparison to the final to the initial temperature reading.

[17] In-dwelling unit hot water recirculation systems meet the following requirements:

a. Must be based on an occupant-controlled switch or an occupancy sensor. A sensor or switch must be installed for each fixture or set of fixtures within a room (e.g., a bathroom with multiple fixtures) in the dwelling unit which is located beyond a 1.8 gallon stored-volume range from the water heater or central recirculation loop.

b. In-dwelling unit recirculation systems which operate based on “adaptive” scheduling, meaning that they “learn” the hot water demand profile in the dwelling unit and adapt their operation to anticipate this profile, are permitted at this time, and do not require the use of occupant-controlled switches or occupancy sensors.

c. In-dwelling unit recirculation systems that are activated based solely on a timer and/or temperature sensor are not eligible.

These provisions do not apply to recirculating central hot water distribution systems.

[18] For recirculating central hot water distribution systems, the following pipe insulation thickness levels or R-values must be met or exceeded. Additionally, pipe insulation shall cover the entire length of the recirculation loop to the extent possible. If piping is routed in building cavities that prevent the noted thickness or R-value from being used due to space constraints, then the maximum thickness of insulation possible within the space shall be used.

Nominal Pipe or Tube Size (inches)	Insulation Thickness (inches)
< 1.5	1.5 (or R10 minimum)
≥ 1.5	2 (or R12 minimum)

[19] ENERGY STAR product certification must be verified with a visual confirmation that the installed product is listed in the online ENERGY STAR product registry.

[20] Due to industry supply chain challenges, DOE is temporarily allowing the use of non-ENERGY STAR certified refrigerators for projects ~~using the ERI and ASHRAE compliance paths~~. Any project utilizing this temporary alternative must account for the non-ENERGY STAR certified refrigerator in the energy model and still achieve the required performance threshold. ~~DOE advises partners that this alternative may be rescinded in a future program update.~~

[21] Products in categories which are not covered by ENERGY STAR product criteria are exempt.

[22] Up to 5% of lighting, for task or decorative lighting, may be exempt from this provision. ~~The Target Dwelling specification for lighting will remain at 100% regardless of whether this exemption is used. Projects following the prescriptive path may not use this 5% exemption.~~

[23] This requirement does not apply to lighting inside appliances (e.g., refrigerator, laundry, microwave, cooking equipment).

[24] This provision does not apply to H/ERVs that are used to provide exhaust ventilation for bathrooms or to exhaust ventilation systems serving more than one dwelling unit.

[25] Buildings permitted on or before 12/31/2026 must certify under either Indoor airPLUS (IAP) Version 1 (Rev 4), or the IAP Version 2 Certified or Gold tier. ~~Buildings permitted on or after 1/1/2027 must certify under the IAP Version 2 Certified or Gold tier. See the Indoor airPLUS program site for information on Version 2 requirements: https://www.epa.gov/indoorairplus/indoor-airplus-version-2~~

[26] An in-unit HRV or ERV is required to provide whole-dwelling mechanical ventilation for dwelling units in Climate Zones 6 – 8 and must meet or exceed the following specifications: ≥ 65% SRE (@ 32 °F) and ≥ 1.2 CFM/Watt (at one or more rating points). Alternatively, projects may utilize centralized H/ERVs serving multiple dwelling units with any efficacy and recovery efficiency.

[27] Advisory: DOE encourages, but does not require, that partners use equipment listed in the Home Ventilating Institute (HVI) Certified Product Directory (CPD) to comply with this requirement. The listing may be used to demonstrate compliance with this program requirement.

[28] Each dwelling unit with an in-unit fossil fuel water heater must have:

a. An individual branch circuit outlet that is installed and energized and terminates within 3 feet of each installed fossil fuel water heater. The individual branch circuit shall have a rating not less than 240V/30A or 120V/20A.
b. A volume of open space located within the dwelling unit that is at least 3’ x 3’ wide and 7’ high available surrounding or within 3 feet of the installed fossil fuel water heater, to facilitate future heat pump water heater installation. The 3’ x 3’ x 7’ volume may contain the existing water heater. The 3’ x 3’ x 7’ space does not need to be provided if the installed water heater is a tankless water heater system.

Dwelling units using an electric water heater are exempt from these requirements.

[29] Drain is no more than two inches higher than the base of the installed water heater and allows draining without pump assistance. Drain is not required to be reserved exclusively for use with a future heat pump water heater. Drain does not need to be provided if the installed water heater is a tankless water heater system or an electric system with a nominal tank volume less than 50 gallons.

[30] If a branch circuit outlet is installed, it shall be in compliance with 2021 IRC Section E3702.11 based on heat pump space heating equipment sized in accordance with 2021 IECC R403.7 and shall terminate within three feet of each fossil fuel space heater. Alternatively, code-compliant wiring conduit to facilitate future wiring for a heat pump installation may be installed and shall terminate within three feet of each fossil fuel space heater. Dwelling units utilizing in-unit electric heating systems as the primary heating for the dwelling unit are exempt from this requirement.

~~[31] Any project may choose to follow Track B for common spaces, even if Track A has been used for dwelling units. Systems eligible for Track A include all systems eligible for Track A under ENERGY STAR Multifamily New Construction, Version 1.2.~~

~~[32] For Prescriptive Path projects using Track B, one of these additional measures is required to achieve energy savings that would be achieved through HVAC Grading for projects using Track A. Projects may use either option for each dwelling unit in the building. If any units are served by a central heat pump water heater, those units also comply with this requirement.~~

~~[33] Field verification of infiltration requirements must be done on a unit-by-unit basis. Infiltration requirements may not be verified with whole-building testing or with an average of results across all units.~~

[34] Any item that will be concealed by drywall (e.g., wall insulation) must be verified during the pre-drywall inspection. If drywall is installed prior to the inspection, then it must be entirely removed to fully verify all items. It is not sufficient to remove only portions of drywall to inspect a subset of areas. Additional information is available in the ENERGY STAR Technical Bulletin: Pre-Drywall Inspection Is Always Required.

[35] Some Items can typically only be verified at a later stage of construction than when the pre-drywall inspection occurs (e.g., bath fan airflow). Any Item that has not been verified during the pre-drywall inspection must be verified prior to or during the final inspection.