

Note: This is a draft of a work in progress for the purposes of stakeholder feedback. There may be errors with formatting, numbering, etc. Additional information will also be available online, when the website for this program is posted.

#### **Eligibility Requirements**

The following multifamily building types are eligible to earn the ENERGY STAR:

- Any multifamily building with dwelling or sleeping units <sup>1</sup> that is NOT a two-family dwelling or townhouse; AND
- Is >50% dwelling units and common space.<sup>2</sup>

Townhouses that are attached to eligible multifamily buildings may go through the HERS Path of the Multifamily New Construction program as long as the whole project goes through the Multifamily New Construction program. The Townhouses will still be modeled to Exhibit 1 of the ENERGY STAR <u>Certified Homes</u> National Program Requirements.

Dwelling units in multifamily buildings that are not eligible to earn the ENERGY STAR through the Multifamily New Construction Program may be eligible through the Certified Homes Program. Additionally, some dwelling units in multifamily buildings that are eligible through the Multifamily New Construction Program may also be permitted to earn the ENERGY STAR through the Certified Homes Program.<sup>3</sup> For more information, visit: www.energystar.gov/newhomes [Note: Website will be updated based on the new program]

Note that compliance with these requirements is not intended to imply compliance with all local code requirements that may be applicable to the building to be built. 4

#### Partnership, Training, and Credentialing Requirements

Builders, Developers, Raters, ASHRAE Path Modelers, and "FT Agents" must meet the following requirements prior to certifying multifamily projects:

- The Builder or Developer for the project is required to sign an ENERGY STAR Partnership Agreement and complete the online "Builder/Developer Orientation", which can be found at <a href="https://www.energystar.gov/homesPA">www.energystar.gov/homesPA</a>. [Note: Orientation will be updated to include information about the new program, but will be combined with the homes requirements]
- FT Agents must meet one of the following:
  - •The HVAC installing contractor AND credentialed by an EPA-recognized HVAC Quality Installation Training and Oversight Organization (H-QUITO). An explanation of this process can be found at <a href="https://www.energystar.gov/newhomesHVAC">www.energystar.gov/newhomesHVAC</a>; OR
  - Not the HVAC installing contractor, AND
    - Signed up online in EPA's online database as an FT Agent and watched the online FT Agent video [Note: will be created for new program and will be similar to the current process for builders]; AND
    - Meets one of the following: A Certified Commissioning Professional (CCP), a Certified Building Commissioning Professional (CBCP), a Building Commissioning Professional (BCxP, formerly the Commissioning Process Management Professional (CPMP)), a NEBB Certified Technician (BSC CxCT) or Certified Professional (BSC CP or CxPP), a representative of the Original Equipment Manufacturer (OEM).
- Raters <sup>5</sup> are required to complete training, which can be found at <a href="https://www.energystar.gov/newhomestraining">www.energystar.gov/newhomestraining</a>. [Note: Will be updated for the new program. The transition time for Raters to have completed this training is TBD]
- Modelers for projects in the ASHRAE Path must sign up online in EPA's online database as a Modeler and watch the online Modeler video. [Note: will be created for new program and will be similar to the current process for builders]

#### **ENERGY STAR Certification Process 6**

- 1. The certification process offers three paths to meet the performance target. Each has varying levels of flexibility to select a custom combination of measures for each building:
  - a. The Prescriptive Path: The units and common areas meet all the prescriptive items in the Rater Field Checklist which align with the minimum requirements set in the ENERGY STAR Multifamily Reference Design, Exhibit 1. As described in Exhibit 3, projects in states that have adopted the residential 2012 IECC or equivalent will follow Version 1.1 of the Reference Design, otherwise projects will follow Version 1.0. [Note: CA, WA and OR Version 1.2 regional requirements are under development]
  - b. The HERS Path: Each unit is equivalent in performance to the minimum requirements of the ENERGY STAR Multifamily Reference Design, Exhibit 1, as assessed through energy modeling, and the common areas meet the prescriptive requirements in the Rater Field Checklist which align with the minimum requirements set in Exhibit 1. As described in Exhibit 3, projects in states that have adopted the residential 2012 IECC or equivalent will follow Version 1.1 of the Reference Design, otherwise projects will follow Version 1.0. [Note: CA, WA and OR Version 1.2 regional requirements are under development]

    Projects must use a RESNET-accredited Home Energy Rating software program to determine the ENERGY STAR HERS Index Target, which is the highest numerical HERS Index value that each rated unit may achieve to earn the ENERGY STAR.
  - c. The ASHRAE (and Title 24 for California) Path: The building meets the ASHRAE/Title-24 performance target, which is dependent on the state energy code and Baseline chosen, as described in Exhibit 4.
    - Projects must follow the requirements in the ENERGY STAR Multifamily Simulation Guidelines. [Note: The MFHR Simulation Guidelines will be updated for the new program]

All ENERGY STAR certifications are subject to the oversight of a Multifamily Oversight Organization which include Verification Oversight Organizations (VOOs) or a <u>Multifamily Review Organizations</u> (MROs). All HERS Path projects must be overseen by a VOO (e.g., RESNET) and all ASHRAE and Prescriptive Path projects must be submitted to an MRO.



- Select the efficiency measures for the building:
  - a. Prescriptive Path: Meet the prescriptive requirements specified in the Rater Design and Field Checklists.
  - b. HERS Path: Using the same software program specified in Step 1, configure the preferred set of efficiency measures for the unit to be certified and verify that the resulting HERS Index meets or exceeds the ENERGY STAR HERS Index Target, as determined in Step 1. Meet the common area to meet the prescriptive common area measures.
  - c. ASHRAE Path: Following the Simulation Guidelines, configure the preferred set of efficiency measures for the building to be certified and verify that the resulting savings above the ASHRAE Baseline Building meets or exceeds the required performance target per Exhibit 4.

Note that, regardless of the path chosen or the measures selected, the Mandatory Requirements for All Certified Multifamily Projects in Exhibit 2 are also required and impose certain constraints on the efficiency measures selected (e.g., insulation levels, insulation installation quality, window performance, duct leakage). Furthermore, on-site power generation may not be used to meet the ENERGY STAR HERS Index Target or the performance target in the ASHRAE Path.

- Construct the building using the measures selected in Step 2 and the Mandatory Requirements for All Certified Multifamily Projects, Exhibit 2.
- 4. Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Multifamily Projects and with RESNET's On-Site Inspection Procedures for Minimum Rated Features. <sup>5</sup> The Rater is required to keep electronic or hard copies of the completed and signed Rater checklists, the HVAC Design Report and, when the FT Agent is not a HVAC Credentialed Contractor, the HVAC Functional Testing Checklist.

The Rater must review all items on the Rater checklists. Raters are expected to use their experience and discretion to verify that the overall intent of each inspection checklist item has been met (i.e., identifying major defects that undermine the intent of the checklist item versus identifying minor defects that the Rater may deem acceptable).

In the event that a Rater finds an item that is inconsistent with the intent of the checklists, the project cannot earn the ENERGY STAR until the item is corrected. If correction of the item is not possible, the project cannot earn the ENERGY STAR. In the event that an item on a Rater checklist cannot be inspected by the Rater, the project also cannot earn the ENERGY STAR. The only exceptions to this rule are in the Thermal Enclosure System Section of the Rater Field Checklist, where the builder may assume responsibility for verifying a maximum of eight items and the sections on the Rater Field Checklist where a Licensed Professional may assume responsibility for verifying the specified items. This option shall only be used at the discretion of the Rater. When exercised, the builder's and/or Licensed Professionals' responsibility will be formally acknowledged by the builder and/or Licensed Professional signing the checklist for the item(s) that they verified.

In the event that a Rater is not able to determine whether an item is consistent with the intent (e.g., an alternative method of meeting a checklist requirement has been proposed), then the Rater shall consult their Provider or MRO. If the Provider or MRO also cannot make this determination, then the Rater, Provider, or MRO shall report the issue to EPA prior to project completion at: <a href="mailto:energystar.gov">energystar.gov</a> [new email TBD] and will typically receive an initial response within 5 business days. If EPA believes the current program requirements are sufficiently clear to determine whether the intent has been met, then this guidance will be provided to the partner and enforced beginning with the building in question. In contrast, if EPA believes the program requirements require revisions to make the intent clear, then this guidance will be provided to the partner but only enforced for homes permitted after a specified transition period after the release of the revised program requirements, typically 60 days in length.

This process will allow EPA to make formal policy decisions as partner questions arise and to disseminate these policy decisions through the periodic release of revised program documents to ensure consistent application of the program requirements.



# Draft National Program Requirements ENERGY STAR Multifamily New Construction, Version 1.0/1.1 Exhibit 1: ENERGY STAR Multifamily Reference Design

The ENERGY STAR Multifamily Reference Design is the set of efficiency features modeled to determine the ENERGY STAR HERS Index Target for each unit pursuing certification. Therefore, while the features below are not mandatory in the units for projects pursuing the HERS Path, if they are not used then other measures will be needed to achieve the ENERGY STAR HERS Index Target. In addition, note that the Mandatory Requirements for All Certified Multifamily Projects, Exhibit 2, contain additional requirements such as total duct leakage limits, minimum allowed insulation levels, and minimum allowed fenestration performance. Therefore, EPA recommends that partners review the documents in Exhibit 2 prior to selecting measures.

For projects pursuing the Prescriptive Path, the following features are mandatory within the units and, as specified in the Rater and Field Checklists, in the common areas. For projects pursuing the HERS Path, the following features are mandatory within the common areas as specified in the Rater Design and Field Checklists.

This Exhibit is not applicable for projects pursuing the ASHRAE/Title 24 Path.

#### Common Area Applicability Notes:

When using the Reference Design for common area measures as specified in the Rater Design and Rater Field Checklist, the following notes apply.

- 1) Heating and Cooling efficiencies for additional equipment are available in the Exhibit X of the Rater Field Checklist
- 2) Insulation levels must meet or exceed the levels in the IECC Commercial chapter of the year specified in the Reference Design, but the required values should come from the "All Other" column and the row that corresponds to the building assembly (e.g., a building with steel-frame walls would use the value in the 'Metal framed' row)
- Windows are to meet or exceed the requirements specified for "Class AW" windows in the Reference Design
- 4) All exterior and common area lighting fixtures are still subject to the efficiency requirements, even though they are not in 'RESNET-defined Qualifying Light Fixture Locations'. Therefore, 90% of all exterior and common area fixtures must be ENERGY STAR certified or meet the alternatives defined in the ENERGY STAR Rater Field Checklist.



**ENERGY STAR Multifamily Reference Design, Version 1.1 (See Exhibit 3 for where this is applicable)** 

Hot Climates (2009 IECC Zones 1,2,3) <sup>9</sup>	Mixed and Cold Climates (2009 IECC Zones 4,5,6,7,8) 9
Cooling Equipment (Where Provided)	
Cooling equipment modeled at the applicable efficiency leve	els below:
• 15 SEER / 12 EER AC,	• CZ 4-8: 13 SEER AC,
Heat pump (See Heating Equipment)	Heat pump (See Heating Equipment)
Heating Equipment	
Heating equipment modeled at the applicable efficiency level.	els below, dependent on fuel and system type:
<ul> <li>Gas furnace, efficiency as follows:</li> <li>CZ 1-3: 80 AFUE,</li> <li>80 AFUE oil furnace,</li> <li>80 AFUE boiler,</li> <li>8.2 HSPF / 15 SEER / 12 EER air-source heat pump with electric or dual-fuel backup</li> </ul>	<ul> <li>CZ 4-8: 95 AFUE ENERGY STAR gas furnace,</li> <li>85 AFUE ENERGY STAR oil furnace,</li> <li>90 AFUE ENERGY STAR gas boiler,</li> <li>86 AFUE ENERGY STAR oil boiler,</li> <li>Heat pump, with efficiency as follows:</li> <li>CZ 4: 8.5 HSPF / 15 SEER / 12 EER air-source w/ electric or dual-fuel backup,</li> <li>CZ 5: 9.25 HSPF / 15 SEER / 12 EER air-source w/ electric or dual-fuel backup,</li> <li>CZ 6: 9.5 HSPF / 15 SEER / 12 EER air-source w/ electric or dual-fuel backup,</li> <li>CZ 7-8: 3.6 COP / 17.1 EER ground-source w/ electric or dual-fuel backup</li> </ul>
Envelope, Windows, & Doors	

Insulation levels modeled to 2012 IECC levels (Commercial, wood-frame) and Grade I installation per RESNET standards.

•		,			•			
Climate Zone:	CZ 1	CZ 2	CZ 3	CZ 4	CZ 4 C & 5	CZ 6	CZ 7	CZ 8
Slab Insulation R-Value:	0	0	0	10	10	15	15	20
Slab Insulation Depth (ft):	0	0	0	2	2	2	2	2
Basement Wall Continuous Insulation R-Value:	0	0	0	7.5	7.5	7.5	10	12.5
Floor Assembly U-Factor:	0.066	0.033	0.033	0.033	0.033	0.033	0.033	0.033
Wall Assembly U-Factor:	0.064	0.064	0.064	0.064	0.064	0.051	0.051	0.036
Ceiling Assembly U-Factor:	0.027	0.027	0.027	0.027	0.021	0.021	0.021	0.021

- Infiltration rates modeled as follows: <0.30 CFM50/ft² of enclosure</li>
- ENERGY STAR windows and doors modeled, as illustrated below:

Window U-Value:	0.40 in CZs 1,2	0.30 in CZ 3	0.30 in CZ 4	0.27 in CZs 5,6,7,8
Window SHGC:	0.25 in CZs 1,2	0.25 in CZ 3	0.40 in CZ 4	Any in CZs 5,6,7,8

Door U-Value:	Opaque: 0.17	≤½ lite: 0.25	>½ lite: 0.30
Door SHGC:	Opaque: Any	≤½ lite: 0.25	>½ lite: 0.25 in CZs 1,2,3; 0.40 in CZs 4,5,6,7,8

Exception: Class AW windows modeled to 2015 IgCC levels (Commercial window U-Value requirements)

Climate Zone:	CZ 1	CZ 2	CZ 3	CZ 4	CZ 4 C & 5	CZ 6	CZ 7	CZ 8
Fixed Window U-Value:	0.48	0.48	0.44	0.36	0.36	0.34	0.28	0.28
Operable Window U-Value:	0.62	0.62	0.57	0.43	0.43	0.41	0.35	0.35
SHGC (same as above)	0.25	0.25	0.25	0.40	0.40	0.40	0.40	0.40

#### Water Heater

DHW equipment modeled with the following efficiency levels as applicable:

			<u> </u>				
Gas	<b>S</b> :		≤55 Gal = 0.67 EF			>55 Gal = 0.77 EF	
Elec	ctric:		≤55 Gal = 0.95 EF		60 Gal = 1.99 EF	70 Gal = 1.99 EF	80 Gal = 1.97 EF
Oil:		30 Gal = 0.64 EF	40 Gal = 0.62 EF	50 Gal = 0.60 EF	60 Gal = 0.58 EF	70 Gal = 0.56 EF	80 Gal = 0.54 EF

#### Thermostat & Ductwork

- Programmable thermostat modeled.
- All ducts and air handlers modeled within conditioned space.

#### Lighting, Appliances, & Fixtures

- ENERGY STAR refrigerators, dishwashers, clothes washers, dryers, and ceiling fans modeled.
- ENERGY STAR light bulbs modeled in 90% of RESNET-defined Qualifying Light Fixture Locations.
- WaterSense bathroom faucets, bathroom aerators, and showerheads



**ENERGY STAR Multifamily Reference Design, Version 1.0 (See Exhibit 3 for where this is applicable)** 

Hot Climates (2009	IECC Zones 1,2,3) 9			Mixed	and Cold C	limates (2009 II	ECC Zones	4,5,6,7,8) 9	•
ooling Equipment (Where Pr	ovided)								
Cooling equipment modeled	at the applicable efficien	cy levels	s below:						
14.5 SEER / 12 EER AC,			• 13 SEE	R AC,					
Heat pump (See Heating Eq	juipment)		<ul> <li>Heat pu</li> </ul>	ımp (See H	Heating Equ	iipment)			
leating Equipment									
Heating equipment modele	d at the applicable efficie	ncy leve	ls below, dep	endent on	fuel and sy	stem type:			
80 AFUE gas furnace,			• 90 AF	UE gas fui	rnace,				
80 AFUE oil furnace,				_	GY STAR o	il furnace,			
80 AFUE boiler,			• 85 AF	UE ENER	GY STAR b	oiler,			
8.2 HSPF / 14.5 SEER / 12 EER air-source heat pump with					efficiency a	•			
electric or dual-fuel backup			• CZ 4: 8	3.5 HSPF /	14.5 SEEF	R / 12 EER air-so	urce w/ ele	ctric or dual	-fuel back
			• CZ 5: 9	.25 HSPF	/ 14.5 SEE	R / 12 EER air-s	ource w/ ele	ectric or dua	al-fuel bac
						R / 12 EER air-so			
			• CZ 7-8:	3.5 COP /	16.1 EER	ground-source w	/ electric or	dual-fuel b	ackup
Envelope, Windows, & Doors									
A radiant barrier modeled if ductwork are located in an u		of	No radia	ant barrier	modeled.				
Insulation levels modeled to	2009 IECC levels (Comr	nercial, v	wood-frame)	and Grade	l installation	on per RESNET :	standards.		
Climate Zone:		CZ 1	CZ 2	CZ 3	CZ 4	CZ 4 C & 5	CZ 6	CZ 7	CZ 8
Slab Insulation R-Value:		0 0	0 0	0 0	10 2	10 2	15 2	15	20 2
Slab Insulation Depth (ft): Basement Wall Continuous I	nsulation R-Value	0	0	0	∠ 7.5	7.5	∠ 7.5	2 10	∠ 12.5
Floor Assembly U-Factor:	noulation it value.	0.282	0.052	0.033	0.033	0.033	0.033	0.033	0.033
Wall Assembly U-Factor:		0.089	0.089	0.089	0.064	0.051	0.051	0.051	0.036
Ceiling Assembly U-Factor:	( II	0.60	0.60	0.35	0.32	0.30	0.30	0.30	0.30
Infiltration rates modeled as Windows and doors modele		or encio	sure						
Window U-Value:	0.60 in CZs 1,2		0.35 in CZ	3	0.3	32 in CZ 4	0.30	in CZs 4 C,	5,6,7,8
Window SHGC:	0.27 in CZs 1,2		0.30 in CZ	3	0.4	10 in CZ 4	Any i	n CZs 4 C,	5,6,7,8
Door U-value:	Opaque: 0.21			≤½ lite:	0.27		>1%	lite: 0.32	
Door SHGC:	Opaque: Any			=/2 lite:				lite: 0.30	
		vels (Co	mmercial win			nents)	- /2 !		
exception: Class AW windows r	CZ 1	CZ				CZ 4 C & 5	CZ 6	CZ 7	CZ 8
Exception: Class AW windows r	62 I			0.2	o	0.38	0.36	0.29	0.29
Climate Zone: Fixed Window U-Value:	0.50	0.5		0.3					
Climate Zone:	_	0.5 0.6 0.2	0.60	0.3 0.4 0.4	5	0.45 0.40	0.43 0.40	0.37 0.40	0.37

DHW equipment modeled with the following efficiency levels as applicable:

Gas:		≤55 Gal = 0.67 EF			>55 Gal = 0.77 EF	
Electric:		≤55 Gal = 0.95 EF		60 Gal = 2.00 EF	70 Gal = 2.00 EF	80 Gal = 2.00 EF
Oil:	30 Gal = 0.64 EF	40 Gal = 0.62 EF	50 Gal = 0.60 EF	60 Gal = 0.58 EF	70 Gal = 0.56 EF	80 Gal = 0.54 EF

#### Thermostat & Ductwork

- Programmable thermostat modeled.
- Supply ducts in unconditioned attics modeled with R-8 insulation; all other ducts in unconditioned space modeled with R-6 insulation.
- Duct leakage to outdoors modeled at the greater of ≤ 4 CFM25 per 100 sq. ft. of conditioned floor area or ≤ 40 CFM25.

#### Lighting, Appliances & Fixtures

- ENERGY STAR refrigerators, dishwashers, clothes washers, dryers, and ceiling fans modeled.
- ENERGY STAR light bulbs modeled in 90% of RESNET-defined Qualifying Light Fixture Locations.
- WaterSense bathroom faucets, bathroom aerators, and showerheads



**Exhibit 2: Mandatory Requirements for All Certified Multifamily Projects** 

Party Responsible	Mandatory Requirements
Rater	<ul><li>Completion of Rater Design Review Checklist</li><li>Completion of Rater Field Checklist</li></ul>
HVAC System Designer	Completion of HVAC Design Report
Functional Testing Agent	Completion of HVAC Functional Testing Checklist
Builder or Developer	Completion of Water Management System Builder Requirements

**Exhibit 3: ENERGY STAR Multifamily New Construction Version 1.1 Implementation Timeline** 

EPA intends to implement the Version 1.1 program requirements for projects permitted starting one year after state-level implementation of the 2012 IECC or an equivalent code. However, EPA will make a final determination of the implementation timeline on a state-by-state basis. Exhibit 3 defines the Version 1.1 implementation timeline for states where EPA has made this determination. Projects permitted prior to the implementation timeline, and projects in states on the 2009 IECC or equivalent, are eligible to earn the ENERGY STAR under Version 1.0 of the program requirements.

Note that regional program requirements and associated implementation schedules are under review for projects in CA, WA and OR.

State	Applicable to Projects with the Following Permit Date
FL,	On or after 07/01/2012
MA	On or after 01/01/2015
DC, IL, MD, RI	On or after 04/01/2015 (except for Calvert County and St. Mary's County in MD, for which the applicable permit date is on or after 07/01/2015)
IA	On or after 06/01/2015
DE	On or after 12/01/2015
MT,OR, WA	On or after 01/01/2016
MN, VT	On or after 04/01/2016
NV	On or after 07/01/2016
MI, NJ	On or after 04/01/2017
NY, TX	On or after 10/01/2017



# Draft National Program Requirements ENERGY STAR Multifamily New Construction, Version 1.0/1.1 Exhibit 4: ASHRAE / Title 24 Path Performance Targets

Projects using the ASHRAE/Title 24 Path in states that have adopted as the commercial code the 2012 IECC, 2015 IECC, ASHRAE 90.1-2010, ASHRAE 90.1-2013, or Title-24, will be required to meet a Performance Target of 15% better than the energy code under which the building is permitted (unless otherwise noted below). All other projects must meet the national requirement of 15% over ASHRAE 90.1- 2007.

#### Notes and Exceptions:

- Local Code Exception: While local city or town codes may differ from the state code, the determination for the ENERGY STAR
  program is based on the commercial code adopted by the state, not the local jurisdiction. In an instance where the building is
  permitted under a local code that is not the same as the state code, the Performance Target is based on the state code in place.
  The permit application or issue date will be used to determine what state code was in place in the state. To determine the code
  adopted by the state and its effective date, please visit www.energycodes.gov.
- California: For projects in California that are permitted to Title 24–2016, the Performance Target is 10% TDV energy savings above Title 24–2016.
- Modeling options: To reduce the burden of applying two different codes to a given project, projects are allowed to use alternate targets of 20% savings over ASHRAE 90.1-2007 as equivalent to 15% over ASHRAE 90.1-2010; and 25% savings over ASHRAE 90.1-2007 and 20% savings over ASHRAE 90.1-2010, as equivalent alternatives to 15% savings over ASHRAE 90.1-2013.
- Appendix G version: For projects pursuing performance targets based on ASHRAE 90.10-2007 or ASHRAE 90.1-2010, the project must use the Appendix G of the code corresponding to their Performance Target or Appendix G from ASHRAE 90.1-2016. Projects pursuing targets based on ASHRAE 90.1-2013 or later must use Appendix G from ASHRAE 90.1-2016. Projects using Appendix G from ASHRAE 90.1-2016 must use the Performance Path Calculator\_AppG2016 and Simulation Guidelines\_AppG2016 available on the Guidance Documents page [Note: Documents and web page will be updated for new program]. Projects may not use Appendix G from ASHRAE 90.1-2016 if they are using the 20% or 25% Performance Target Options. Note: Addendum bm from ASHRAE 90.1-2013 is not referenced since its content and the related excerpts that followed have been incorporated into Appendix G from ASHRAE 90.1-2016.

Performance Target Options: Savings (%) above varying ASHRAE 90.1 Baselines								
State Code	90.1-2007	90.1-2010	90.1-2013					
2009 IECC	15% <sup>10</sup>	NA	NA					
2012 IECC	20%11	15% <sup>10</sup>	NA					
2015 IECC	25% <sup>11</sup>	20%11	15% <sup>12</sup>					

#### **Footnotes:**

- 1. The term 'building' refers to a structure utilized or intended for supporting or sheltering any occupancy for which at least 90% of its boundary is comprised of exterior walls. A dwelling unit, as defined by the 2012 IECC, is a single unit that provides complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation. The term 'sleeping unit' refers to 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.
- 2. The term 'common space' refers to any spaces on the property that serve a function in support of the residential part of the building that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, or parking garages used exclusively by residents, building staff, and their guests. This also includes offices used by building management, administration or maintenance and all special use areas located on the property to serve and support the residents such as day-care facilities, gyms, dining halls, etc.
- 3. Provided the ENERGY STAR Certified Homes Rater Field Checklist is updated to require compartmentalization (as described in the Multifamily Rater Field Checklist Item 4.10) for attached units except two-family dwellings and townhomes, the following units are also eligible to go through the Certified Homes program:
  - a. Buildings with 4 or fewer units
  - b. Buildings that are 3 stories or less, have no central systems, and have <20% common space.<sup>2</sup>

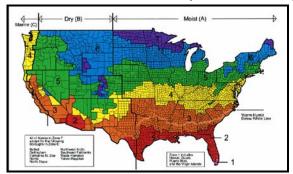
Units pursuing this option must still be modeled to Exhibit 1 of the ENERGY STAR <u>Multifamily</u> National Program Requirements, even while going through the Certified Homes program.

- 4. Where requirements of the local codes, manufacturers' installation instructions, engineering documents, or regional ENERGY STAR programs overlap with the requirements of these guidelines, EPA offers the following guidance:
  - a. Where the overlapping requirements exceed the ENERGY STAR guidelines, these overlapping requirements shall be met;
  - b. Where overlapping requirements conflict with a requirement of the ENERGY STAR program (e.g., slab insulation is prohibited to allow visual access for termite inspections), then the conflicting requirement within these program requirements shall not be



met. Certification shall only be allowed if the Rater has determined that no equivalent option is available that could meet the intent of the conflicting requirement (e.g., switching from exterior to interior slab edge insulation). Note that a project must still meet its Performance Target. Therefore, other efficiency measures may be needed to compensate for the omission of the conflicting requirement.

- 5. The term 'Rater' refers to the person completing the third-party inspections required for certification. This person shall: a) be a certified Home Energy Rater, Rating Field Inspector, or an equivalent designation as determined by a Verification Oversight Organization or Multifamily Review Organization; and, b) have attended and successfully completed an EPA-recognized training class. See <a href="https://www.energystar.gov/newhomestraining">www.energystar.gov/newhomestraining</a>. [Note: This will be updated for the new program]
  - Raters who operate under an MRO or a Sampling Provider are permitted to verify the Minimum Rated Features of the home and to verify any Checklist Item designated "Rater Verified" using the RESNET-approved 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 Functional Testing Checklist are permitted to be verified using a sampling protocol.
- 6. These requirements apply to all dwelling units, sleeping units, most common spaces<sup>3</sup> on the property, and parking lots. These requirements do not apply to common spaces that are located in buildings without any dwelling or sleeping units.
- 7. The software program shall automatically determine (i.e., without relying on a user-configured ENERGY STAR Multifamily Reference Design) this target for each rated home by following the Multifamily ENERGY STAR HERS Index Target Procedure, Version 1.0 or 1.1 based on location, available on EPA's website.
- 8. These National Program Requirements are required to certify all projects permitted after TBD, but are allowed to be used for any project permitted or completed prior to this date. The Rater may define the 'permit date' as either the date that the permit was issued or the application date of the permit. In cases where permit or application dates are not available, Providers or Multifamily Oversight Organizations have discretion to estimate permit dates based on other construction schedule factors. These assumptions should be both defensible and documented.
- 9. The following map illustrates the Climate Zone boundaries as defined by the 2012 IECC Figure R301.1.



- 10. Appendix G from the referenced code or ASHRAE 90.1-2016 or may be used.
- 11. These Performance Target options may not be used for projects using Appendix G from ASHRAE 90.1-2016.
- 12. Appendix G from ASHRAE 90.1-2016 must be used.