U.S. DOE Zero Energy Ready Home Program Multifamily National Program Version 2, PV-Ready Checklist DRAFT

These Photovoltaic Ready provisions of the DOE Zero Energy Ready Home program shall be met by any building eligible for certification under the Multifamily Version 2 National Program Requirements, unless one or more of the exceptions (noted below) applies. If one or more exceptions apply, a project may be certified under the DOE Zero Energy Ready Home program if all other applicable program requirements are met.

The exceptions are:

a. The building already includes an on-site PV system. Documentation of the system must be retained by the rater.
b. The building receives renewable energy from a community solar system, and there is a legally binding agreement in place for the provision of this energy to the building with a duration ≥ 15 years and written to survive a full or partial transfer of ownership of the property. Documentation of this agreement must be retained by the rater.
c. A building with a solar-ready zone that is shaded for more than 70 percent of daylight hours annually. Documentation of the analysis concluding that the 70 percent threshold is not met must be retained by the rater.
d. For buildings with roof slopes of 4:12 or greater, no portion of the building roof is oriented in between 110 degrees to 270 degrees of true north. Documentation must be retained by the rater.
e. A building where the licensed professional certifies that the solar zone area required by this checklist cannot be met because of extensive rooftop equipment, skylights, vegetated roof areas, or other obstructions. Rater must retain this documentation.

These requirements are based, in part, on the provisions of the 2021 Commercial IECC, Appendix CB.

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Item #	**Requirement**	**Rater Verified[1]**
	One or more of the exceptions listed above applies and required documentation is retained by the rater. If this box is checked, the remaining items on this list are not required and the rater may mark the PV-Ready checklist as completed on the National Rater Checklist.	☐
1	A solar-ready zone (a section or sections of the roof or building overhang designated and reserved for the future installation of a solar PV system) is located on the roof and/or other viable building surfaces (which may include awnings and the roofs of ancillary buildings including carports). For buildings with roof slopes of 4:12 or greater, solar-ready zone is located in between 110 degrees to 270 degrees of true north.	☐
2	The total solar-ready zone area is not less than 40 percent of the roof area calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, vegetated roof areas and mandatory access or set back areas required by the International Fire Code (IFC). For buildings with roof slopes of 4:12 or greater, the solar-ready zone is not less than 40 percent of the horizontally projected gross roof area with an orientation between 110 degrees to 270 degrees of true north (less the area covered by skylights, occupied roof decks, vegetated roof areas and mandatory access or set back areas required by the IFC).	☐
3	The solar-ready zone is either a single area or several smaller, separated sub-zone areas not less than 5 feet (1524 mm) in width in the narrowest dimension.	☐
4	The solar-ready zone is free from obstructions, including pipes, vents, ducts, HVAC equipment, skylights, and roof-mounted equipment.	☐
5	A collateral dead load[2] of not less than 5 pounds per square foot (PSF) shall be included in the gravity and lateral design calculations for the solar-ready zone. The structural design loads for roof dead load and roof live load are indicated on construction documents.	☐
6	Construction documents indicate pathways for routing of conduit or piping from the solar-ready zone(s) to the main electrical service panel.[3]	☐
7	The main electrical service panel[3] has a reserved space to allow installation of a dual-pole circuit breaker for future solar electric system. This space is labeled “For Future Solar Electric.” The reserved space is positioned at the end of the panel that is opposite from the panel supply conductor connection.	☐
8	A permanent certificate indicating the solar-ready zone and all other requirements of this checklist is posted near the electrical distribution panel or other conspicuous location by the builder or registered design professional.	☐

[1] The Rater is defined as the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater or Approved Inspector, as defined by ANSI / RESNET / ICC Standard 301, or an equivalent designation as determined by a DOE-recognized Home Certification Organization for ZERH (HCO for ZERH). All Raters for DOE ZERH projects must successfully complete a DOE ZERH orientation course. The Rater shall also have a signed partnership agreement in place with the DOE ZERH program.

[2] Collateral dead load is a subset of dead load that includes the weight of any materials (current or future) other than permanent construction.

[3] If the building does not have a main electrical service panel serving the entire building, then an electrical service panel serving common space may be used to satisfy this provision.