DOE
Zero Energy Ready Home Solar Hot Water-Ready Checklist (Encouraged)

DOE Zero Energy Ready Home National Program encourages, but does not require, consideration of this checklist. Although the checklist is always encouraged, the following three conditions could be considered when deciding on using the checklist. Where **all three conditions** of the following conditions are met DOE encourages use of this checklist:

1. Location, based on zip code has at least 5 kWh/m^2/day average daily solar radiation based on annual solar insolation using PVWatts online tool: http://gisatnrel.nrel.gov/PVWatts_Viewer/index.html **AND**;

2. Location does not have significant natural shading (e.g., trees, tall buildings on the south-facing roof, **AND**;

3. Home as designed has adequate free roof area within +/-45° of true south as noted in the table below.

Conditioned Floor Area of the House (sq. ft.)	Minimum Roof Area within +/- 45◦ of True South for Solar Hot Water-Ready Checklist to Apply (ft^2)
≤ 2000	40
≤ 4000	60
≤ 6000	80
> 6000	100

These requirements were adapted from the EPA's Renewable Energy Ready Home Solar Water Heating Specification Guide (RERHSWH Guide). For further guidance on any of the above items, this checklist notes the section of the guide. This guide can be accessed on the DOE Zero Energy Home program website at http://www1.eere.energy.gov/buildings/residential/pdfs/rerh_swh_guide.pdf.

Designate a proposed array location and square footage on architectural diagram: **SWH** _____ sq.ft. *(RERHSWH Guide 1.1)*	☐
Identify orientation (Azimuth) of proposed array location: **SWH** _____ degrees. *(RERHSWH Guide 1.2)*	☐
Identify Inclination of proposed array location: **SWH**_____ degrees. *(RERHSWH Guide 1.3)*	☐
Provide code-compliant documentation of the maximum allowable dead load and live load ratings of the existing roof; recommended: allowable dead load rating can support an additional 6 lbs/sq. ft. for future solar system. *(RERHSWH Guide 2.1)*	☐
Provide architectural drawing and riser diagram of solar hot water components. *(RERHSWH Guide 3.6)* **Alternative**: Provide home buyer with the following information: ➢ List of renewable-ready features ➢ Available free roof area within +/- 45° of true south ➢ Location of panel or blocking for future mounting of SWH components ➢ Location of Riser ➢ Copy of the Solar Hot Water-Ready Checklist ➢ A copy of the RERH Hot Water Specification Guide	☐
Install a single 4" chase or two 2" chases from utility room to the attic space below designated array location (cap and label both ends). *(RERHSWH Guide 3.5)*	☐
Provide code-compliant documentation of the maximum allowable floor load rating for storage tanks installed on non-concrete floors. *(RERHSWH Guide 2.2)*	☐
Note: *Homes equipped with an ENERGY STAR qualified whole home gas tankless water heater or an ENERGY STAR qualified heat pump water heater are exempt from the remaining provisions of the checklist.*	
Install and label a 3' x 3' x 7' area in the utility room adjacent to the existing water heater for solar hot water tank. *(RERHSWH Guide 3.1)*	☐
Install and label a 3' x 2' plywood panel area adjacent to the solar hot water tank for the balance of system components/pumping package. *(RERHSWH Guide 3.2)* **Alternative:** Blocking is permitted to be used as an alternative to the 3' x 2' wood panel area designated for the future panel to mount solar HW components shall be clearly noted in the system documentation.	☐