Attachment 2
DOE-Sponsored Priority List for Manufactured Homes

Contents

Region Map

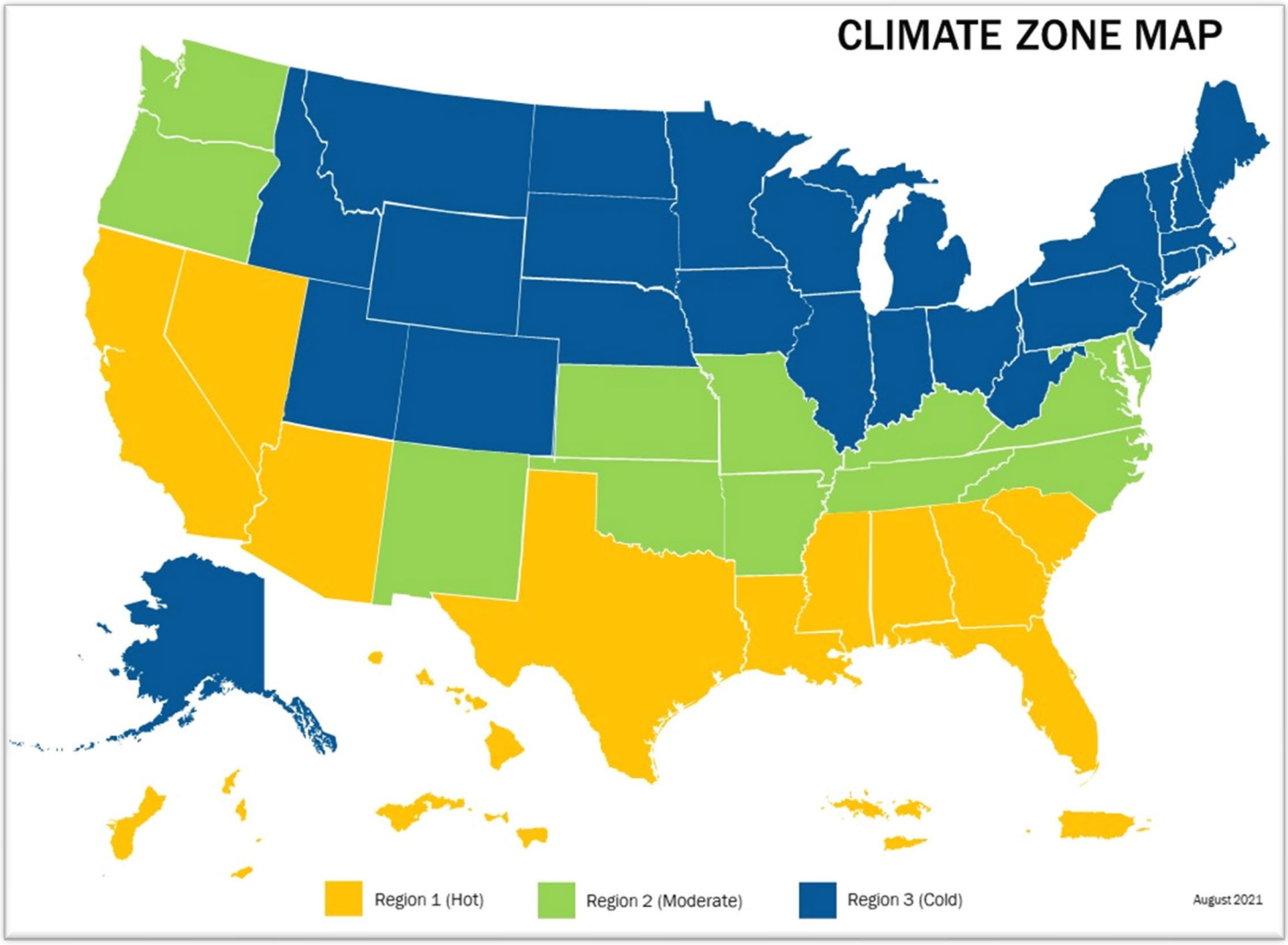

Figure 1 - Regions for Implementation

Definitions

A/C: Air Conditioner is a system that utilizes a refrigerant cycle to produce cooling and dehumidification for indoor spaces. They are rated in various manners depending on the age and type including EER, SEER, and CEER. The higher the number the higher the efficiency.

AFUE: Annualized Fuel Utilization Efficiency is a rating for fossil fuel combustion appliances that accounts for the full combustion cycle over the entire year which may include pilot light and chimney heat loss. The higher the number the higher the efficiency.

Applicable Measure: Any measure included on the regional priority list that can be physically installed as outlined in the priority list and does not already exist (e.g., the attic is accessible and has less than the targeted R-value of insulation existing, then insulating the attic is applicable and must be installed). Any measure deemed not to be "applicable" for the project must be documented, including photos and reason for exclusion.

CEER: Combined Energy Efficiency Rating is a rating used for packaged or window air conditioners that includes both the operational energy used during the cooling cycle and the standby energy used by the unit when powered on but not operating. The higher the number the higher the efficiency.

COP: Coefficient of Performance is a rating used for heat pump technology that focuses specifically on the heating capacity of the unit at a given steady state outdoor temperature. The higher the number the higher the efficiency.

EC Motors: Electronically Commutated Motors are motors who utilize DC voltage for operations and are variable speed based on DC voltage input. These motors transform AC voltage to DC voltage internally for the operation of the attached motor.

EER2: Energy Efficiency Rating is a rating used for packaged or window air conditioners that only includes the operational energy used by the unit for cooling but does not include the standby energy as is rated using the CEER method. This method has been replaced with CEER for newer appliance models. The higher the number the higher the efficiency.

HSPF2: Heating Season Performance Factor is a rating used for heat pump technology that factors in the seasonal outdoor operating conditions in the calculation of heating efficiency. The higher the number the higher the efficiency.

Mandatory Measure: Any measure included on the regional priority list that is labeled as "mandatory" and is applicable to the project. These measures must be installed if any DOE funds are to be used on the project.

Optional Measure: Any measure included on the regional priority list that is labeled as "optional" and may be installed in the dwelling unit with any funding source, including DOE WAP funds, if all other applicable mandatory measures are also installed.

PTAC: Packaged Terminal Air Conditioners are standalone heating/cooling appliances that are used to condition an individual room or small dwelling unit and are installed on an exterior wall with both the condenser and evaporator as well as the air circulation fans all confined in a single unit. These may feature either electric resistance heat or heat pump technology for heating.

SEER2: Seasonal Energy Efficiency Rating is a rating used for split system air conditioners that factors in the seasonal operating conditions of the unit in the calculation of cooling efficiency. The higher the number the higher the efficiency.

Procedures

The Grantee may decide for each project whether it will utilize the approved Priority List (PL) as outlined or conduct a site-specific energy audit in compliance with DOE guidance and its current written energy audit approval.

These Priority Lists apply to any single-wide or double-wide manufactured home that meets the following checklist:

1. Is manufactured before 2010.
2. Has an accessible unconditioned subspace.
3. Does NOT have an attached conditioned addition.
4. Primary heating system is NOT a natural gas furnace originally rated for ≥80% AFUE.
5. Job will not exceed **$500** in incidental repairs meeting the definition outlined in WAP WPN 19-5.

Grantees utilizing these PLs with any DOE funds must install all required Health and Safety (H&S) measures per the Grantee's DOE-approved H&S plan. If the PL is applied to a project using any DOE funds, then any measure listed as "mandatory" may only be skipped if it is physically impossible to install, regardless of funding source used for the measure. If another funding source is used for a mandatory measure, it must meet the requirements of the DOE WAP as outlined in the PL. "Optional" measures may only be installed if all other applicable mandatory measures are installed as well.

If the auditor determines that the home needs any energy conservation measure not included on this PL or if the home does not meet the basic requirements listed above, then a site-specific energy audit must be run in compliance with the Grantee's most recently DOE-approved energy audit procedures.

ACPU expenditure of financial assistance provided under WAP for labor, weatherization materials, and related matters cannot exceed the Average Cost Per Unit (ACPU) limits as defined in DOE's annual Weatherization Program Notice (WPN) XX-1. All installation costs must be procured in compliance with 2 CFR 200 and Grantee's procurement policies. Individual measure cost caps, if applicable, are detailed in the applicable regional Priority List.

Region 1 (Hot) – Manufactured Home PL

1. Mandatory: Install all applicable Health and Safety (H&S) measures per the Grantee's DOE-approved H&S Plan.
2. Mandatory: Light Emitting Diode (LED) lighting replacement of all existing screw-based incandescent, halogen, or compact fluorescent lighting used for a minimum of one hour per day.
    - Lighting Replacement SWS
3. Mandatory: Air Sealing – seal the primary pressure boundary surfaces at the following locations: attic top-plates (if accessible); all penetrations and holes through the ceiling, exterior walls, and floor.
    a. Target value is 1 cfm/ft2 of conditioned floor area.
        - Air sealing SWS
4. Mandatory: Duct Sealing – seal all accessible ducts. At a minimum, seal all end caps, crossovers, duct boot connections, holes or penetrations, and furnace connections.
    a. Target value is 1 Pascal per register.
        - Duct sealing SWS
5. Mandatory: Ceiling insulation (both flat and vaulted ceilings) – fill ceiling to R-38 or to capacity, whichever is less, with blown insulation.
        - Attic Floors – Unconditioned Attics SWS
6. **Optional only for home with propane or oil-fired primary heat**: Replace all single-paned metal-framed windows with Low-E double-paned windows having a U-value of 0.33 or less. Single pane windows with storm windows are not eligible for replacement using DOE funds.
        - Window Replacement SWS
7. Optional: **$250** per home DOE WAP funds cap
    a. Faucet aerators (≤2.2 GPM) – Low-Flow Devices SWS
    b. Showerhead (≤2.5 GPM) - Low-Flow Devices SWS
    c. Domestic Water Heater (DWH) tank insulation (R-10) – Tank Insulation SWS
    d. DWH pipe insulation (6' of both hot and cold-water lines nearest the DWH, and any accessible hot water lines beyond that to R-3.) – Pipe Insulation SWS
8. Optional: Replace up to (1) refrigerator per home, with a label rating of less than 400kWh/yr and maximum installed cost of **$850** per unit when the existing refrigerator:
    a. Was manufactured before 2001, OR
    b. Uses >1000 kWh/yr based upon energy use metering or industry accepted resource.
        - Refrigerator and Freezer Replacement SWS
9. Optional: Primary Heating and Air-Conditioning System Replacements
        - Heating & Cooling: Equipment Installation SWS

    i) Replace existing window A/C manufactured before 2014 with a 12 CEER or higher unit of the same or lesser BTU capacity.

    ii) If the home has any other existing combination of heating/cooling systems other than as described above, then an energy model may be run that assumes items 1-5 have been completed and determine if an alternative heating/cooling system replacement is cost effective for this specific home.

Region 2 (Moderate) – Manufactured Home PL

1. Mandatory: Install all applicable Health and Safety (H&S) measures per the Grantee's DOE-approved H&S Plan.
2. Mandatory: Light Emitting Diode (LED) lighting replacement of all existing screw-based incandescent, halogen, or compact fluorescent lighting used for a minimum of one hour per day.
    - Lighting Replacement SWS
3. Mandatory: Air Sealing – seal the primary pressure boundary surfaces at the following locations: attic top-plates (if accessible); all penetrations and holes through the ceiling, exterior walls, and floor.
    a. Target value is 1 cfm/ft2 of conditioned floor area.
        - Air sealing SWS
4. Mandatory: Duct Sealing – seal all accessible ducts. At a minimum, seal all end caps, crossovers, duct boot connections, holes or penetrations, and furnace connections.
    a. Target value is 1 Pascal per register.
        - Duct sealing SWS
5. Mandatory: Ceiling insulation (both flat and vaulted ceilings) – fill ceiling to R-49 or to capacity, whichever is less, with blown insulation.
        - Attic Floors – Unconditioned Attics SWS
6. Mandatory: Replace all single-paned metal-framed windows with Low-E double-paned windows having a U-value of 0.33 or less. Single pane windows with storm windows are not eligible for replacement using DOE funds.
        - Window Replacement SWS
7. Optional: **$250** per home DOE WAP funds cap
    a. Faucet aerators (≤2.2 GPM) – Low-Flow Devices SWS
    b. Showerhead (≤2.5 GPM) - Low-Flow Devices SWS
    c. Domestic Water Heater (DWH) tank insulation (R-10) – Tank Insulation SWS
    d. DWH pipe insulation (6' of both hot and cold-water lines nearest the DWH, and any accessible hot water lines beyond that to R-3.) – Pipe Insulation SWS
8. Optional: Replace up to (1) refrigerator per home, with a label rating of less than 400kWh/yr and maximum installed cost of **$850** per unit when the existing refrigerator:
    a. Was manufactured before 2001, OR
    b. Uses >1000 kWh/yr based upon energy use metering or industry accepted resource.
        - Refrigerator and Freezer Replacement SWS
9. Optional: Primary Heating and Air-Conditioning System Replacements
        - Heating & Cooling: Equipment Installation SWS

    i) Replace existing window A/C manufactured before 2014 with a 12 CEER or higher unit of the same or lesser BTU capacity.

    ii) If the home has any other existing combination of heating/cooling systems other than as described above, then an energy model may be run that assumes items 1-6 have been completed and determine if an alternative heating/cooling system replacement is cost effective for this specific home.

Region 3 (Cold) – Manufactured Home PL

1. Mandatory: Install all applicable Health and Safety (H&S) measures per the Grantee's DOE-approved H&S Plan.
2. Mandatory: Light Emitting Diode (LED) lighting replacement of all existing screw-based incandescent, halogen, or compact fluorescent lighting used for a minimum of one hour per day.
    - Lighting Replacement SWS
3. Mandatory: Air Sealing – seal the primary pressure boundary surfaces at the following locations: attic top-plates (if accessible); all penetrations and holes through the ceiling, exterior walls, and floor.
    a. Target value is 1 cfm/ft2 of conditioned floor area.
        - Air sealing SWS
4. Mandatory: Duct Sealing – seal all accessible ducts. At a minimum, seal all end caps, crossovers, duct boot connections, holes or penetrations, and furnace connections.
    a. Target value is 1 Pascal per register.
        - Duct sealing SWS
5. Mandatory: Ceiling insulation (both flat and vaulted ceilings) – fill ceiling to R-60 or to capacity, whichever is less, with blown insulation.
        - Attic Floors – Unconditioned Attics SWS
6. Mandatory: Floor/Belly Insulation – Fill all belly cavities to capacity and proper density (1.25-1.75 pounds per cubic foot) with blown insulation after air sealing floor and ducts.
    a. MH Belly Insulation SWS, Ground Vapor Retarder SWS
7. Mandatory: Replace all single-paned metal-framed windows with Low-E double-paned windows having a U-value of 0.33 or less. Single pane windows with storm windows are not eligible for replacement using DOE funds.
        - Window Replacement SWS
8. Optional: **$250** per home DOE WAP funds cap
    a. Faucet aerators (≤2.2 GPM) – Low-Flow Devices SWS
    b. Showerhead (≤2.5 GPM) - Low-Flow Devices SWS
    c. Domestic Water Heater (DWH) tank insulation (R-10) – Tank Insulation SWS
    d. DWH pipe insulation (6' of both hot and cold-water lines nearest the DWH, and any accessible hot water lines beyond that to R-3.) – Pipe Insulation SWS
9. Optional: Replace up to (1) refrigerator per home, with a label rating of less than 400kWh/yr and maximum installed cost of **$850** per unit when the existing refrigerator:
    a. Was manufactured before 2001, OR
    b. Uses >1000 kWh/yr based upon energy use metering or industry accepted resource.
        - Refrigerator and Freezer Replacement SWS
10. Optional: Primary Heating and Air-Conditioning System Replacements
        - Heating & Cooling: Equipment Installation SWS

    i) Replace existing window A/C manufactured before 2014 with a 12 CEER or higher unit of the same or lesser BTU capacity.

    ii) If the home has any other existing combination of heating/cooling systems other than as described above, then an energy model may be run that assumes items 1-7 have been completed and determine if an alternative heating/cooling system replacement is cost effective for this specific home.