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United States Government **Department of Energy**

Memorandum

DATE: November 29, 2022

REPLY TO ATTN OF: EE-5W

SUBJECT: Supplemental Approval of the State of New Mexico Energy Audit Procedures for Site Built Single Family, Manufactured, and Multifamily Housing for the Weatherization Assistance Program – Adding Regional Priority Lists

TO: Christine Askew & Tommi Makila, Project Officers, Weatherization Assistance Program, U.S. Department of Energy

EFFECTIVE: 11/29/2022

To ensure that energy audit procedures of sufficient technical rigor are used in the U.S. Department of Energy's (DOE's) Weatherization Assistance Program (WAP), Grantees must submit their energy audit procedures to DOE for approval every five years for review and approval in alignment with §440.21 and Weatherization Program Notice (WPN) 19-4.

Based on review of the submitted material, New Mexico's Energy Audit Tool and/or Priority List and their procedures are approved as follows:

Table 1 – Energy Audit Tool Approvals

Tool	Building Type	Comments	Expiration Date
WA v8.9 (NEAT)	Site-Built Housing (SBH) (1-4 Units)	See Table 2 for related PL approvals	11/7/2023
WA v8.9 (MHEA)	Manufactured Housing (MH)	See Table 2 for related PL approvals	11/7/2023
TREAT	Small Multifamily (SMF) (5-24 Units)	See Table 2 for related PL approvals	10/20/2027
TREAT	Large Multifamily (LMF) (25+ Units)	N/A	10/20/2027

Table 2 – Priority List Approvals		
Building Type	**Housing Characteristics That Priority List Applies To**	**Expiration Date**
Site-Built Housing (SBH) (1-4 Units)	See Attachments for DOE-Approved PL. Expires on same date as associated energy audit approval.	11/7/2023
Manufactured Housing (MH)	See Attachments for DOE-Approved PL. Expires on same date as associated energy audit approval.	11/7/2023
Small Multifamily (SMF) (5-24 Units)	See Attachments for DOE-Approved PL. Expires on same date as associated energy audit approval.	10/20/2027
Large Multifamily (LMF) (25+ Units)	Grantee has no DOE-Approved PL for LMF Housing	N/A

Per the procedure allowed by 10 CFR 440.21b and set forth in WPN 19-4 the following materials/audit procedures have been approved for use in New Mexico's program in addition to those allowed by 10 CFR 440 Appendix A:

Table 3 - Special Materials/Audit Procedures Approvals	
Item	**Comments**
Grantee Administered Fuel-Switching	Approved 6/27/2022
Refrigerators (Energy Star)	Approved 4/10/2019
Light Emitting Diode (LED) Lighting	Approved 2/1/2016

Per the procedure allowed by 10 CFR 440.20 and set forth in WPN 19-4 the following General Heat Waste Reduction measures are approved for use in New Mexico's program, not to exceed $250 in total costs:

Table 4 – Approved General Heat Waste Measures	
Item	**Comments**
Grantee has no approved GHW measures. All Energy Conservation Measures (ECM) must be modeled for energy savings.	

The following conditions apply to these audit approvals:

Table 5 - Approval Conditions	
Building Type (SBH, MH, SMF, LMF)	**Conditions Explanation**
N/A	N/A

This approval of the State of New Mexico energy audit procedures (Energy Audit Tool and/or Priority List) expires on the dates outlined in Tables 1 and 2 above. As of the effective date of this memo, all previous energy audit or priority list approvals for these housing type(s) are no longer valid. The Grantee must submit its energy audit procedures to DOE for reapproval at least 6 months prior to their expiration date.

Please forward this memorandum to the Grantee agency and answer any questions they may have concerning its contents.

Erica Burrin
Erica Burrin
Program Manager
Weatherization and Intergovernmental Program
Energy Efficiency and Renewable Energy

Attachment 1 – DOE-Approved New Mexico PL Procedures
Attachment 2 – DOE-Approved Priority List for Site-Built Single Family
Attachment 3 – DOE-Approved Priority List for Manufactured Housing
Attachment 4 – DOE-Approved Priority List for Low Rise Multifamily
Attachment 5 – DOE-Approved New Mexico Climate Zone Map

Attachment 1 – DOE-Approved New Mexico PL Procedures

New Mexico Procedures and Field Protocol for Priority List Determination

On July 1, 2022, the use of Priority Lists (PL) has been made effective by DOE WPN 22-8. This can be a benefit to the NM Energy$mart Program if, when used, it is consistent with all 10 CFR 440 and DOE guidance. The procedures below outline when the use of the PL is appropriate. For each of the three dwelling types, the service provider is responsible for making that determination by use of a pre-assessment checklist and energy audit procedures.

If the energy auditor decides that a PL will be a good fit for a particular home or project, it is imperative that all DOE approved energy audit procedures be followed except for fields that are needed only for modeling software input. The PL can save time and resources, but all Health and Safety items must be applied in the same manner as they would for a home that receives a full energy audit model.

The use of PLs must be in full compliance with WPN 22-8. All mandatory measures **must** be installed, unless demonstrated to be physically impossible. Agencies may not mix and match funding sources to avoid this. Other funding sources may be used to install mandatory measures, but still must meet the minimum requirements outlined in the priority lists. Optional measures may only be installed if all possible mandatory measures have been installed.

Priority List Dos

- Be more advantageous to the client and program than energy audit
- Follow all Health and Safety policies and procedures
- Applied measures must adhere to applicable Standard Work Specifications (SWS)
- Result in greater consistency of work quality
- QCI serves to build a framework to make inspections more efficient with higher quality
- Follow all other regulations, DOE guidance, NM Standards, codes, and contractual obligations
- Install all mandatory measures
- Other funding sources used still meet WAP requirements

Priority List Don'ts

- Be less advantageous to client or program
    - Resulting in missed opportunities that would have ranked on an energy audit
- Used to avoid measures or work
- Skip on diagnostic testing
- Skip on H&S
- Defer house because it does not qualify for PL
- Use wrong region or wrong dwelling type
- Install optional measures without all the possible mandatory measures

Single Family Checklist

1. Age of home_____
2. Is the construction something other than wood frame? Yes ☐ No ☐
3. Is the primary heating system sealed combustion rated >89%? Yes ☐ No ☐
4. Is the primary heating system a heat pump manufactured after 2006? Yes ☐ No ☐
5. Are incidental repairs expected to be more than $500? Yes ☐ No☐
6. Does it appear the home will need measures that are not listed on the PL? Yes ☐ No☐

Any answers of "yes" will result in energy modeling and audit; a PL will NOT be used.

Mobile Home Checklist

1. Age of home_____
2. Is the home manufactured 2010 or later? Yes ☐ No ☐
3. Are there barriers and space limitations for the belly/subspace Yes ☐ No ☐
4. Is the primary heating system natural gas rated >79%? Yes ☐ No ☐
5. Are incidental repairs expected to be more than $500? Yes ☐ No☐
6. Does it appear the home will need measures that are not listed on the PL? Yes ☐ No☐

Any answers of "yes" will result in energy modeling and audit; a PL will NOT be used.

Multifamily Checklist

1. Age of building_____
2. Is the construction something other than wood frame? Yes ☐ No ☐
3. Are there more than 3 stories? Yes ☐ No ☐
4. Are incidental repairs expected to be more than 10% of project's total ECMs? Yes ☐ No☐
5. Does it appear the building will need measures that are not listed on the PL? Yes ☐ No☐
6. Will items listed as "optional" be installed in common areas? Yes ☐ No☐ **Project may proceed if doe funds are not used for common areas**

Any answers of "yes" will result in energy modeling and audit; a PL will NOT be used.

QCI

Homes that receive services based off a PL are to receive a complete QCI final inspection that includes all the same protocol that homes that receive energy audits do. If missed opportunities are suspected, a full energy audit must be run to determine if the item in question would have been cost effective if considered. The job will not be closed out and considered complete until the eligible item is properly installed and inspected.

ACPU

Service Provider are responsible for continuing to watch their ACPU when using the PLs. If the ACPU is in jeopardy of being exceeded because of PL use, the Service Provider will resort to energy modeling for the remainder of the program year.

Reporting

Service Providers will report PL homes with all the individual measures the same as other homes except for SIR where NA can be used. Energy savings will be based on an historical average that MFA will calculate for each of the measures listed. These numbers will be provided to the Service Providers for reporting on those measures.

Monitoring

MFA will monitor Service Providers to ensure that all rules of the program are practiced. If is discovered that PLs are being used inconsistent with this document, accompanying attachments, or other applicable rules, the use of PL will no longer be allowed for that Service Provider until full corrective action is completed.

Links to Resources

10 CFR 440 Code of Federal Regulations for Weatherization
2 CFR 200 OMB Budget and Grant Guidance
WPN 22-8 Priority List Guidance with Attachments
WPN 19-4 Energy Audits
WPN 19-5 Incidental Repair

Attachment 2 – DOE-Approved Priority List for Site-Built Single Family

All Regions – Single-Family Site-Built Priority List

Region 1
Region 2
Region 3

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 exterior pressure boundary surfaces at all the following locations: attic top-plates; ceiling, wall, and floor bypasses, penetrations, and holes; sill box to floor intersection if on unconditioned crawlspace or basement, or entire sill box area if conditioned foundation.
    - Target value is 1 cfm/ft2 of conditioned floor area.
    - Air sealing SWS
4. Mandatory: Duct Sealing – seal all accessible ducts located outside the thermal boundary.
    - Target value is 1 Pascal per register as measured with a Pressure Pan.
    - Duct sealing SWS
5. Mandatory: Duct Insulation – insulate all accessible uninsulated ducts located outside the thermal boundary to R-8 or R12 if exposed to the exterior.
    - General Duct insulation SWS
6. Mandatory: Ceiling insulation
    - Unconditioned Attic
        i. Mandatory: insulate all accessible attics to R-38, R-49, R-60 or to capacity if less.
            - Attic Floors - Unconditioned Attics SWS
        ii. Mandatory: insulate all uninsulated enclosed attics to capacity (e.g., floored or cathedral).
            - Attic Floors - Unconditioned Attics SWS
    - Finished Attic / Kneewall Attic / Bonus Room
        i. Mandatory: Insulate all attic flats (collar beam & outer ceiling joists) to R-38, R-49, R-60 or to capacity if less.
            - Attic Floors - Unconditioned Attics SWS
        ii. Mandatory: Insulate all uninsulated attic enclosed roof rafter slopes to maximum capacity
            - Inaccessible Ceilings – Dense Pack SWS
        iii. Mandatory: Insulate all uninsulated knee walls to R-15 or to capacity, whichever is greater.
            - Attic Knee Walls SWS
7. Mandatory: Wall Insulation
    a. Mandatory: – Insulate any exterior wall cavity with no existing insulation to full dense-packed capacity.
    b. Optional: – Insulate any partially insulated exterior wall cavities (e.g., 3.5" cavity with 2" of existing batt) using dense-pack insulation.
        - Dense Pack Insulation SWS
8. **Region 1 Mandatory only for home with propane or oil-fired primary heat:** Floor insulation – insulate all uninsulated floors over unconditioned foundations to R-30 or to full joist capacity, if less. Must include complete ground moisture barrier over any exposed dirt floors. Ground Vapor Retarder SWS, Floors SWS
   Region 2 Mandatory: Floor insulation – insulate all uninsulated floors over unconditioned foundations to R-30 or to full joist capacity, if less. Must include complete ground moisture barrier over any exposed dirt floors.
   o Floors SWS, Ground Vapor Retarders SWS
   Region 3 Mandatory Foundation Insulation – (skip measure if foundation is slab)
    a. Conditioned or Unvented Foundations
        - Mandatory: Insulate accessible rim/band joist (sill box) to R-30 or to capacity, if less.
        - Optional: Insulate accessible above-grade foundation walls to R-15 continuous insulation or R-19 cavity insulation or to capacity, if less.
        - Rim/Band Joist SWS, Conditioned Subspaces: Walls SWS
    b. Unconditioned or Vented Foundations
        - Mandatory: Insulate all floors over unconditioned foundations to R-30 or to full joist capacity, if less. Must include complete ground moisture barrier over any exposed dirt floors.
        - Floors SWS, Ground Vapor Retarders SWS

Optional Measures

9. Optional: - (**$250** per home DOE WAP funds cap)
    - Faucet aerators (≤2.2 GPM) – Low-Flow Devices SWS
    - Showerhead (≤2.5 GPM) - Low-Flow Devices SWS
    - Domestic Water Heater (DWH) tank insulation (R-10 minimum) – Tank Insulation SWS
    - 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
10. 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:
    - Was manufactured before 2001, OR
    - Uses >1000 kWh/yr based upon energy use metering or industry accepted resource.
        - Refrigerator Replacement SWS
11. Optional: Primary Heating and Air-Conditioning System Replacements
        - Heating &Cooling: Equipment Installation SWS

REGION 3

i) Replace existing ducted electric resistance forced-air furnace and air conditioning combination with a heat pump of minimum 10/HSPF & COP @5°F >1.75 (at maximum capacity operation) which includes an EC air handler motor.

ii) Replace existing combination of non-ducted fixed electric resistance heat (e.g., electric baseboard, and PTAC units), and non-ducted air conditioning (i.e., window or room A/C, including PTAC) with a minimum 10/HSPF & COP @5°F >1.75 (at maximum capacity operation) mini-split heat pump system.

iii) Replace existing ducted heat pump system that is manufactured before 2006 with a heat pump rated a minimum of 10/HSPF & COP @5°F >1.75 (at maximum capacity operation) which must include an EC air handler motor.

REGIONS 1&2

i) Replace existing ducted electric resistance forced air furnace and air conditioning combination with a heat pump of minimum 15/SEER & 8.2/HSPF which must include an EC air handler motor.

ii) Replace existing combination of non-ducted fixed electric resistance heat (e.g., electric baseboard, and PTAC units), and non-ducted air conditioning (i.e., window or room A/C, including PTAC) with a minimum 19/SEER & 10/HSPF mini-split heat pump system.

ALL REGIONS

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

iv) 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 1-8 have been completed and determine if an alternative heating/ cooling system replacement is cost effective for this specific home.

Attachment 3 – DOE-Approved Priority List for Manufactured Housing

REGION 1
REGION 2
REGION 3

All Regions – 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 capacity with blown insulation.
    - Attic Floors – Unconditioned Attics SWS
6. **Region 3 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. **Region 2 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
   Region 3 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
   Region 1 Optional only for homes 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

Optional Measures

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

Attachment 4 – DOE-Approved Priority List for Low Rise Multifamily

REGION 1
REGION 2
REGION 3

All Regions – LRMF 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 flourescent 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; attic ceiling; exterior wall, and floor penetrations, and holes; sill box to floor intersection if on unconditioned crawlspace or basement, or entire sill box area if conditioned foundation.
    - Air sealing SWS
4. Mandatory: Duct Sealing – seal all accessible ducts located outside the thermal boundary.
    - Duct sealing SWS
5. Mandatory: Duct Insulation – insulate all accessible uninsulated ducts located outside the thermal boundary to R-8 or R12 if exposed to the exterior.
    - General Duct insulation SWS
6. Mandatory: Ceiling insulation – insulate all accessible attics to R-38, R-49, R-60 or to capacity if less.
    - Attic Floors - Unconditioned Attics SWS
7. Mandatory: Wall Insulation
    - Mandatory – where the total gross area of any uninsulated exterior wall is >10%, insulate the missing areas to capacity with dense pack insulation. Dense Pack Insulation SWS
    - **Region 3 Optional** – Insulate any partially insulated exterior wall cavities (e.g., 3.5" cavity with 2" of existing batt) using dense-pack insulation.
        - Dense Pack Insulation SWS
8. Mandatory: Foundation Insulation – (skip measure if foundation is slab)
    - Conditioned or Unvented Foundations
        - **Region 3 Mandatory**: Insulate accessible rim/band joist (sill box) to R-30 or to capacity, if less.
        - Optional: Insulate accessible above-grade foundation walls to R-15 continuous insulation or R-19 cavity insulation or to capacity, if less.
        - Rim/Band Joist SWS, Conditioned Subspaces: Walls SWS
    - Unconditioned or Vented Foundations
        - **Region 2 Mandatory**: Insulate all floors over unconditioned foundations to R-30 or to full joist capacity, if less. Must include complete ground moisture barrier over any exposed dirt.
        - Floors SWS, Ground Vapor Retarders SWS
        - **Region 3 Mandatory:** Insulate all floors over unconditioned foundations to R-30 or to full joist capacity, if less. Must include complete ground moisture barrier over any exposed dirt. Floors SWS, Ground Vapor Retarder SWS

Optional Measures

9. Optional: - (**$250** per dwelling unit DOE WAP funds cap)
    - Faucet aerators (≤2.2 GPM) – Low-Flow Devices SWS
    - Showerhead (≤2.5 GPM) - Low-Flow Devices SWS
    - Domestic Water Heater (DWH) tank insulation (R-10) – Tank Insulation SWS
    - 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
10. Optional: Replace up to (1) refrigerator per dwelling unit, with a label rating of less than 400kWh/yr and maximum installed cost of **$850** per unit when the existing refrigerator:
    - Was manufactured before 2001, OR
    - Uses >1000 kWh/yr based upon energy use metering or industry accepted resource.
        - Refrigerator and Freezer Replacement SWS
11. Optional: LED lighting replacement of fluorescent tube lighting - Lighting Replacement SWS

12. Optional: Primary Heating and Air-Conditioning System Replacements - Heating & Cooling: Equipment Installation SWS
13. Replace existing ducted electric resistance forced air furnace and air conditioning combination with a heat pump of minimum
    - **Region 1** 15/SEER & 8.2/HSPF which includes an EC air handler motor
    - **Region 2** 15/SEER & 9/HSPF which includes an EC air handler motor.
    - **Region 3** 10/HSPF & COP @5°F >1.75 (at maximum capacity operation) which includes an EC air handler motor.

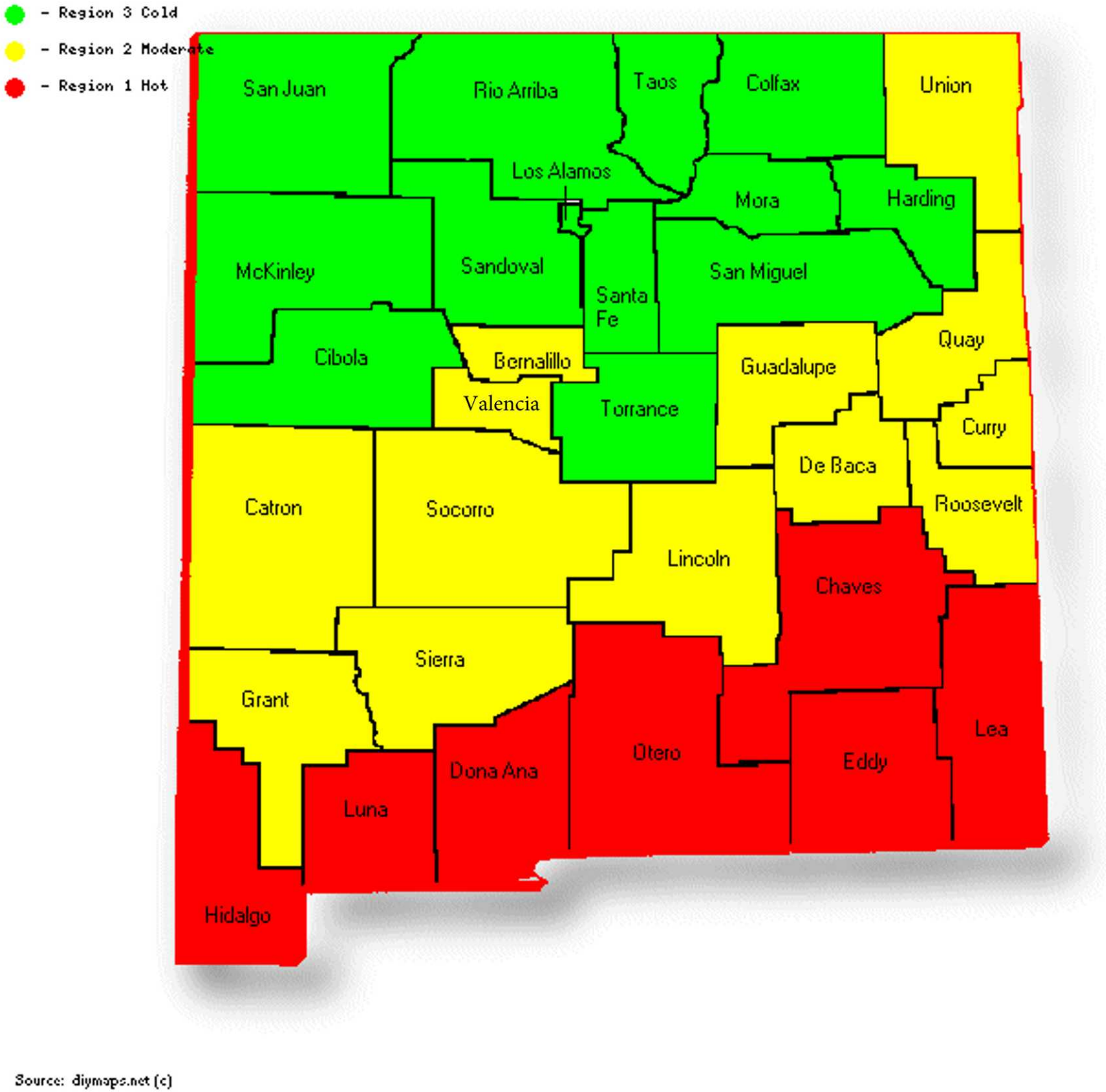
14. Replace existing combination of non-ducted fixed electric resistance heat (e.g., electric baseboard, and PTAC units), and non-ducted air conditioning (i.e., window or room A/C, including PTAC) with a minimum
    - **Region 1** 19/SEER & 10/HSPF mini-split heat pump system.
    - **Region 2** 19/SEER & 10/HSPF mini-split heat pump system.
    - **Region 3** 10/HSPF & COP @5°F >1.75 (at maximum capacity operation) mini-split heat pump system.

15. Replace existing ducted heat pump system that is manufactured before 2006 with a heat pump rated a minimum of
    - **Region 1** 15/SEER & 8.2 HSPF heat pump which must include EC air handler motor.
    - **Region 2** 15/SEER & 9/HSPF heat pump which must include an EC air handler motor.
    - **Region 3** 10/HSPF & COP @5°F >1.75 (at maximum capacity operation) which must include an EC air handler motor.

16. Replace any existing window A/C system manufactured before 2014 with a new 12 CEER or higher unit.
17. If the building has any other existing combination of heating/cooling systems other than as described above, then an energy model may be run in compliance with the Grantee's DOE-approved audit process which assumes items 1-8 have been completed and determine if an alternative heating/cooling system replacement is cost effective for this specific building.

Attachment 5 – DOE-Approved New Mexico Climate Zone Map

Climate Zone



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