
US DOE Sustainable Energy Resources for Consumers (SERC) Minnesota Efficiency Window Replacement Project (SERC Windows Program) Policy Manual Addendum

Effective: July 1, 2024

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Project Overview: The Minnesota Efficiency Window Replacement Project (SERC Windows Program) is designed to address the weatherization component of window replacements. This program will be referred to as the SERC Windows Program.

Through current weatherization efforts, Service Providers (SP) focus their efforts on effectively air-sealing homes, insulating to maximum R-values, and ventilating appropriately. Windows are a measure that is generally not cost-effective to replace and is often impossible to properly air seal due to design and condition. These areas are also large surface areas with little R-value, which affects the overall wall assembly and diminishes the wall's effective R-value. This, in turn, impacts the home's heating and cooling loads, the household's comfort, and the potential for health and safety concerns such as mold and moisture buildup.

The SERC Windows Program's overall goal is to enhance energy conservation for low-income households served by WAP by replacing old, ineffective, and deteriorated single-pane windows (with and without storm) in single-family homes with high-performing windows with a priority to serve disadvantaged communities identified by Justice40 areas of the state.

POLICY: Install windows that are ENERGY STAR Northern Climate rated AND meet or exceed a U-value of 0.22 or less and have a Solar Heat Gain Coefficient (SHGC) of 0.17 or greater. This can be achieved with double or triple pane windows. The current statewide average cost per unit (ACPU) is \$35,000. Additional health and safety dollars are available for related project measures and do not affect the ACPU.

Allowable Repairs: Replacements of all existing single pane windows (excluding basement windows) and single pane sliding, or French glass doors exposed to outside ambient air.

Other related work:

- Renovation, Repair, and Painting (RRP) activities on window and window components
- Interior and exterior wall repairs associated with window replacement
- Permits associated with window replacement (check with local building official)

Repairs not listed here will be considered on a case-by-case basis and must receive prior Commerce approval.

Window Types: Due to potential extreme project costs, SPs will need to determine the proper window selection that will best fit with the project. Window selection can be like for like but no extra features are allowed. Commerce is working to secure a product selection list that will help provide information on manufacturers and the windows they have available.

Dwelling Eligibility: Dwellings must be owner-occupied, single-family, site-built dwellings. All eligibility rules under Section 2 and 3 of the Policy Manual apply. Service providers must work with Commerce staff for client selection. Contact the Project Administrator at Commerce before beginning any project.

Prioritization: To receive SERC Windows Program measures, a client must be WAP eligible with priority given to clients in historically redlined neighborhoods, Tribal lands, and disadvantaged communities identified by Justice40 areas of the state. WAPMAP can be used to help SPs prioritize their work. SPs are recommended to maintain a list and prioritize by households in disadvantaged communities.

Braiding: Braiding of funds is allowed. SERC Windows Program can be used on weatherization projects using US DOE Formula funding or weatherization projects using WAP BIL funding. SERC Windows Program can be used in conjunction with other SERC or E&I grants (WIRE Access), Weatherization Readiness Funds, EAPWX, and/or CIP funding.

Unit Completions: The use of these funds must result in a completed US DOE (Formula or WAP BIL) unit or spent on a project that has been previously weatherized and anchored by US DOE Formula or WAP BIL funds. If a previously weatherized home is served, required documentation of previous work and project funding will be required, and a new site visit will need to be completed as pre- and post-blower door results are required and adjustments to mechanical ventilation may be needed.

The SERC Windows Program is allowed as another exception under Policy Manual 1.3.3 Unit Completions. SERC Windows Program work may be completed in one program year with weatherization measures being completed the next program year. Units are counted in the program year when the entire project is completed. Individual audit measures, including SERC Windows Program measures, must be started and completed, including passing inspection, within the same program year.

Documentation: Documentation of the SERC Windows Program projects follow MN WAP Policy Manual, Section 4.3 Household File Contents. Audit field notes and pictures justifying the need for window upgrades are required and must be included in the client file. Pictures will also be required of Renovation, Repair, and Painting (RRP) activities and of the completed measures. Window bids and specifications of windows will be required and must follow policies and procedures outlined in Chapter 7 Procurement.

State Historic Preservation Office (SHPO): Requirements found in 3.7 State Historic Preservation Office (SHPO) review apply. SHPO review and approval is required before work can start. A new SHPO review will be required on previously weatherized projects.

Required Diagnostic Testing: Pre and post window install blower door results are required for each household. This is separate from the pre and post blower door results that are required during the installation of weatherization measures. Blower door guided air sealing must be based on post window results so that the window installation is not affecting the general air sealing Savings-to-Investment (SIR) calculated by Weatherization Assistant (WA). It is also best practice to size ventilation after the window install is completed. If

work is being completed on a previously weatherized project, post ASHRAE calculation adjustments to mechanical ventilation is required when applicable.

Client Education: Additional client education is needed to encourage measure maintenance and understanding of any changes made to the home's thermal envelope. A homeowner agreement will include acknowledgement of potential changes in appearance, operation, and performance. Clients should also be aware that higher performance windows can result in an increased frequency of exterior condensation (i.e. dew). This can be communicated as normal or an expected outcome and a direct result of the higher performance of the installed windows (when less heat is lost, the exterior surface falls below the dew point more often).

Contractors: Requirements found in 7.4.2 Contractor Eligibility Section in the WAP Policy Manual must be followed for SERC Windows Program measures. Contractors must be entered in FACSPRO and eligible at the time work starts.

Renovation, Repair, and Painting (RRP): Contractors must have RRP certification, registered as a Lead Firm with EPA, follow all RRP rules and regulations, and submit and maintain proper documentation, including pictures. At a minimum, pictures should be taken of posted signs, the setup work area prior to work, the work area after it has been cleaned and a picture of the clearance wipes for the cleaned work area. See the *Lead Safe Renovation Record Keeping* and *Lead Test Kit Documentation* forms for required information. These costs can be charged to the Health and Safety section of this program. It will be beneficial to plan how these associated costs may affect other planned weatherization measures and whether it may be possible to share or cover related health and safety costs. Example: Costing or sharing RRP expenses with the wall insulation measures.

Quality Control Inspector (QCI): All work must pass inspection by a certified Quality Control Inspector (QCI) before final payment can be released. The full weatherization project of measures does not need to be completed in order to pay for the windows. Similar rules apply for interim inspections of policy 4.6.2.5. The QCI will be responsible for ensuring all work is done according to the bid and Standard Work Specifications (SWS) and ensure that the windows meet all requirements of the program, such as U-value, SHGC, and workmanship.

Monitoring: Commerce Field Monitors will verify that the SERC Windows Program funds were spent on a home that resulted in weatherization and that the statewide SERC Windows Program average was maintained and priority was given to client(s) in disadvantaged communities. Monitors will review the quality of the work performed using SERC Windows Program funds to determine that it is completed and meets program standards.

Windows Program Procedure:

1. Conduct a full audit to determine pre-weatherization blower door results.
2. Verify that the existing windows meet the requirements of the program.
3. Verify that no additional issues identified will result in a deferral following MN WAP policy manual Section 3.8. The SERC Windows Program funds may only be used on a dwelling that results in a fully weatherized unit (or on a previously weatherized DOE (Formula or WAP BIL) completed unit).

4. Review the household with Commerce to determine eligibility. Add Commerce's written approval to the household file.
5. Solicit bids from eligible contractors following current MN WAP Policy Manual Section 7.4.2. Select the lowest bid that best meets the job specifications.
6. Create a work order in Weatherization Assistant (WA) as part of the audit event.
 - a. Work Order: MEWRP/HH Number
 - b. Work Order Type: Other
 - c. Measure Type: Other
 - d. Measure Name(s): Window Replacement
 - e. Cost Center Name and Type: SERC MEWRP and DOE
7. Release Work Orders.
8. Conduct installation and any necessary repairs.
9. Conduct a post-weatherization blower door test to ensure window installation effectiveness. Adjust mechanical ventilation, if applicable.
10. Verify that the work scope has been completed and no deferral conditions remain.
11. Review applicable documentation and confirm that all required documentation is present.
12. BPI HEP Quality Control Inspector (QCI) must determine if the work scope has been completed and relevant documents are in order and accounted for before each project is paid.
13. Approve funding and make final payment to the Contractor.
14. Proceed to full weatherization, if applicable.