

CLEAN ENERGY FOR LOW INCOME COMMUNITIES ACCELERATOR

Overview

The purpose of the U.S. Department of Energy's (DOE) [Weatherization Assistance Program](#) (WAP) is to “increase the energy efficiency of dwellings owned or occupied by low-income persons or to provide such persons renewable energy systems or technologies, reduce their total residential expenditures, and improve their health and safety” (10 CFR 440.1). As such, WAP Grantees and Subgrantees can provide participating low-income households access to renewable energy when appropriate and cost effective.

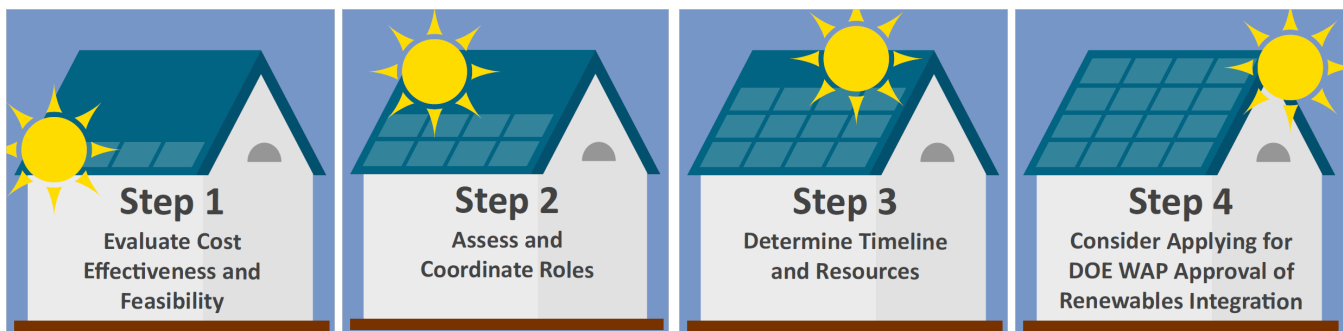
It is important for Grantees to have a thorough understanding of [WAP renewable energy integration] issues before considering and/or undertaking a [renewable energy] pilot project. If a Grantee currently lacks the technical expertise to address these points accurately, it is imperative that this expertise is acquired via training or the assistance of an outside consultant before submitting a request to DOE.
-- WAP Memorandum 024

This preliminary assessment guide is based on lessons learned from the Clean Energy for Low Income Communities Accelerator (CELICA), where a small group of WAP Grantees sought to understand how to integrate renewable energy technology, such as Solar Photovoltaics (PV), into WAP projects.

This guide is meant to help WAP Grantees assess whether renewable energy is a fit for their program. For Grantees ready to proceed, it can help them prepare to integrate renewable energy into their weatherization program and reduce unnecessary delays after submitting an application to DOE. DOE encourages potentially interested Grantees to utilize this preliminary assessment guide to determine compatibility prior to submitting an application to DOE using the [Weatherization Grantee Renewable Energy Technology Application Template](#).

Recommended Action Items Prior to Submitting for WAP Approval

This preliminary assessment guide is intended to provide WAP Grantees with an understanding of what information is generally needed to receive approval to use DOE WAP funding for the installation of renewable energy measures. DOE recommends that Grantees follow Steps 1 through 4.



- ▶ **Step 1** encourages Grantees to assess their capability and their network's ability to create a pilot project that will cost-effectively support adding renewable energy into their weatherization program.
- ▶ **Step 2** suggests ways that Grantees can understand and identify which partners are necessary and what roles they can play in the pilot project.
- ▶ **Step 3** asks Grantees to determine the amount of time and resources needed to effectively plan and implement the renewable energy technology in their weatherization program.
- ▶ **Step 4** provides recommendations for Grantees considering completing the Weatherization Grantee Renewable Energy Technology Application Template and submitting to DOE for approval.

Organizational, network, financial, and technical actions for each step are outlined in the following pages.



Recommended Action Items

Organizational/Network Assessment

- ▶ Consider including renewable energy measures only after WAP agency fundamentals and energy efficiency implementation are high performing. For example, a Grantee should meet satisfactory WAP production goals, quality assurance, and quality control before the addition of renewables.
- ▶ Identify goals and objectives for integrating renewables into your program. For example, Grantees may decide to set a goal to lower a customer's electricity bill through renewables to a specific amount or percentage.
- ▶ Evaluate your network's capacity to integrate renewables with the existing suite of WAP services. For example, ensure there is staff at all levels with the technical expertise required to implement the new technology.

Financial Assessment

- ▶ Develop a strategy to leverage funding through matching funds or to buy down the cost of a renewable energy system given the WAP contribution is capped at a certain amount by law. For example, consider utility incentives, investment tax credits, and Solar Renewable Energy Credits. Use [WAP Memorandum 035: Weatherization Leveraging](#) for guidance.

Technical Assessment

- ▶ Evaluate the initial cost effectiveness of PV in a particular state using the National Renewable Energy Lab (NREL) [Solar Savings-to-Investment Ratio \(SIR\) Calculator](#).
- ▶ Understand and research the proposed size and capacity of the renewable technology to be installed, potential energy production, and how much it will cost.
- ▶ Identify a methodology to incorporate the renewable energy measure into a DOE approved energy audit tool.
- ▶ Determine feasibility for eligible low-income housing to host rooftop renewables using tools such as [NREL's Solar for All](#).¹
- ▶ Consider Historical Preservation measures that will need to be taken. For guidance use [Historic Preservation DOE Program Guidance](#).²

¹ The NREL map visualizes rooftop solar technical potential for U.S. low-income households or how much solar could technically be located on rooftops to serve LMI communities. It doesn't take into account the economics of installing solar in a state, and thus, Grantees will need to demonstrate that solar projects meet WAP cost-effectiveness thresholds using the NREL Solar Savings-to-Investment calculator.

² Grantees must comply with federal regulations on historic properties or sites that are listed on or eligible for listing on the National Register of Historic Places.



Recommended Action Items

Organizational/Network Assessment

- ▶ Identify a champion at the Grantee and Subgrantee level to shepherd the process and pilot project from inception to completion. For example, a Subgrantee with strong overall performance and interest to expand services is likely best equipped to successfully participate in a pilot project.
- ▶ Develop a plan for Grantees, Subgrantees, utilities, and developers to coordinate and identify each stakeholder's interest to incorporate renewables within the WAP. For example, identify what incentives and potential barriers exist for participation.
- ▶ Develop a strategy for identifying program-eligible households and the number of households to be targeted. For example, a Subgrantee can assess rooftops of WAP eligible homes and buildings.

Technical Assessment

- ▶ Identify appropriate candidate pilot project sites. For example, identify sites with a sound structure and relatively new roof, a willing owner, and high solar energy potential.
- ▶ Identify experienced service providers to perform renewable energy assessments, installations, and maintenance. For example, decide whether it is most feasible to train current staff or solicit new solar project contractors as partners.
- ▶ Given WAP funding cannot be used for maintenance nor for returning to a previously weatherized home in future years, develop a strategy for addressing maintenance, including who will be responsible and cover the cost in the event of damage or repair, and the timeframe for system maintenance.
- ▶ Draft a Request for Proposals (RFP) that can stipulate contractors guarantee installed systems.



Recommended Action Items

Organizational/Network Assessment

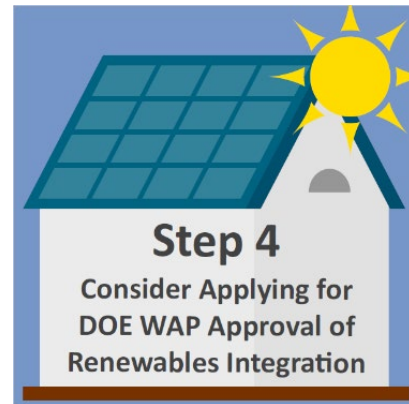
- ▶ Assess the timeline of DOE WAP funding allocations and how the renewable energy technology will be installed during that timeframe. For example, for multifamily projects, ensure project funding aligns with project timelines.
- ▶ Develop a strategy for conducting a National Environmental Policy Act Environmental Assessment (NEPA) also known as [Environmental Questionnaire](#) of selected pilot project sites. NEPA is necessary only for buildings with 5 or more units. This can help expedite review and minimize delays.

Financial Assessment

- ▶ Evaluate if any state/federal policies will affect your project. For example, incentives, volatility of electricity rates, net metering policy, and renewable credits over the system's lifetime may affect each project.

Technical Assessment

- ▶ Identify a method for monitoring system production after installation. For example, evaluate your progress and results and conduct past bill analysis to compare modeled to actual PV electricity production and savings.
- ▶ Develop a timeline for conducting an assessment, submitting documentation for DOE approval, and installing systems; ensure the project can be completed within the DOE grant cycle.



Recommended Action Items

Organizational/Network Assessment

- ▶ Gather input from your Subgrantee network. For example, form an advisory committee or conduct interviews to gather feedback.
- ▶ Determine ability to complete and submit all the required items in a satisfactory manner according to [WPN 19-4](#) and [Memo 024](#); reach out to your DOE Project Officer to indicate your desire to include renewable energy technology into WAP and to seek guidance on DOE requirements.
- ▶ Draft renewable energy technology integration language to include in your WAP annual state plan.
- ▶ Incorporate recommendations and input from your DOE Project Officer, National Association for State Community Services Programs, and other State Weatherization offices that have knowledge and experience incorporating renewable energy into the WAP.

WAP Grantee Guidance to Reference

Please refer to the documents below for more detail on the appropriate use of WAP funds for renewable energy technology in your weatherization program. Contact your DOE Project Officer with any questions.

- [WAP Memorandum 024: The Use of Solar Photovoltaics in the Weatherization Assistance Program](#)
This program memo provides high level guidance on the WAP approval process for Grantees interested to incorporate renewable energy technology into their program.
- [Adjusted Average Cost Per Dwelling Unit - 10 CFR Part 440.18 \(b\) and \(c\)](#)
This link to the WAP federal code states requirements related to weatherizing a home; this includes the average cost per dwelling unit, which is a factor for Grantees to consider when deciding whether to incorporate renewable energy technologies into their program.
- [Weatherization Program Notice 19-4: Revised Energy Audit Approval Procedures, Related Audit and Material Approvals](#)
This program memo clarifies the procedures by which Grantees submit energy audits for DOE approval; renewable energy technologies need to be included in the approved audit tool.
- [WAP Memorandum 035: Weatherization Leveraging](#)
This program memo provides guidance on how leveraged funds and buy down funds are treated differently in operating a local WAP program; the guidance may be relevant for projects that depend upon utility or other sources of funding to incorporate renewable energy technology.

Learn More

- [Reducing Energy Burden with Solar: Colorado's Strategy and Roadmap for States](#)
Funded by the Colorado Energy Office (CEO), this NREL report summarizes CEO's work to provide solar to low-income households through weatherization and other state and utility programs.
- [DOE Weatherization Grantee Renewable Energy Technology Application Template](#)
After walking through each step in this preliminary assessment guide, if a Grantee decides to proceed, they will need to complete an application to DOE using this template.