Low Income Services Solar Program Manual

Massachusetts Department of Energy Resources

With CET Support

March 2026

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1. Introduction

1.1 Acronyms

Table 1: Acronyms

Key Word	Definition
LISSP	Low Income Services Solar Program
EJ	Environmental Justice
EEA	Executive Office of Energy and Environmental Affairs
DOER	Massachusetts Department of Energy Resources
CET	Center for EcoTechnology
PV	Photovoltaic
MLP	Municipal Light Plant
AC/DC	Alternating Current/Direct Current
MW	Megawatt
kW	Kilowatt
kWh	Kilowatt hour
SMART	Solar Massachusetts Renewable Target
RPS	Renewable Energy Portfolio Standard

1.2 Key Terms

Table 21: Key Terms

Key Word	Definition
Nonprofit	A 501(c)3 organization.
System Owner	The individual or entity that owns the solar energy system. The System Owner is responsible for overseeing the installation, ensuring compliance with program guidelines, and maintaining the system post-installation. For LISSP projects, this is typically a nonprofit organization that provides essential services to low-income or Environmental Justice (EJ) communities.
System Host	A System Owner that has received a grant award from LISSP but has not yet reached project completion. This includes any nonprofit organization that has been approved for funding but is still in the installation or pre-installation stages of the solar project.
Primary Installer/Integrator	The Primary Installer/Integrator is the primary entity responsible for the project installation. The Primary Installer/Integrator must be a professional contractor licensed to conduct business in Massachusetts. Any electrical work performed on the installation must be conducted by an electrician holding a valid and current license in Massachusetts. The Primary Installer/Integrator is directly responsible for turnkey project management and installation work,

	although the installation work may be subcontracted. "Do-it-yourselfers" are not eligible to be a Primary Installer/Integrator unless they are Massachusetts-licensed electricians completing an installation on their own property.
Applicant	The Applicant is the Primary Installer/Integrator or the individual/entity that prepares and submits the application on behalf of the System Owner. For LISSP, the Applicant typically coordinates with the nonprofit organization to develop the project proposal and ensures that all required documentation is submitted to the Center for EcoTechnology (CET) and the Department of Energy Resources (DOER).
Low-Income Services Solar Program (LISSP)	A Massachusetts program designed to provide solar energy grants to nonprofit organizations offering essential services, including food security, houselessness support, and emergency shelter to low-income residents. The program also targets nonprofits serving Environmental Justice (EJ) populations, as defined by the Executive Office of Energy and Environmental Affairs (EEA).
Program Administrator	The entity designated to act on behalf of LISSP to oversee the program's implementation, review applications, and approve funding disbursements. For LISSP, the Department of Energy Resources (DOER) serves as the Program Administrator, working in collaboration with CET.
Center for EcoTechnology (CET)	A partner organization that provides technical assistance, outreach, and application support for LISSP. CET works closely with nonprofits and solar installers to ensure successful project development and implementation.
Environmental Justice (EJ) Communities	Communities that meet the criteria defined by the Executive Office of Energy and Environmental Affairs, which include areas where residents are of lower income, minority status, or where English is not the primary language spoken at home. These communities are a priority focus for LISSP, in order to ensure equitable access to clean energy resources.

1.3 Overview of the Low-Income Services Solar Program

The Low-Income Services Solar Program (LISSP), established by Mass. Gen. Laws Chapter 29, Section 2LLLLL, and with additional support from the Department of Energy Resources (DOER), seeks to provide solar energy to nonprofit organizations that offer services such as food security, houselessness support, emergency shelter, and other services as determined and approved by the DOER to low-income residents of the Commonwealth of Massachusetts (Commonwealth).

This program specifically targets nonprofits located in Environmental Justice Communities or serving EJ Populations, as defined by the EEA[1]. Through LISSP, nonprofit organizations are eligible to receive grants to install solar energy systems and battery back-up at their primary operational sites (or other locations that support their service delivery) with the goal of reducing energy costs, enhancing energy resilience, and promoting sustainability. Funding amounts can be found in Section 3.1.

1.4 Purpose of the Program Manual

This manual provides detailed information on the application process, funding opportunities, technical requirements, and compliance expectations for participation in LISSP. By following this guide, organizations can better understand the steps needed to successfully apply for and implement solar projects under LISSP.

1.5 Organization Background and Mission

1.5.1 Massachusetts Department of Energy Resources (DOER)

The Massachusetts Department of Energy Resources (DOER) develops and implements policies and programs aimed at ensuring the adequacy, security, diversity, and cost-effectiveness of the Commonwealth's energy supply to create a clean, affordable, and resilient energy future for all residents, businesses, communities, and institutions.

1.5.2 Center for EcoTechnology (CET)

The Center for EcoTechnology (CET) is a key partner in LISSP, providing technical assistance, application assistance, and project closeout/grant distribution to participating nonprofits. By collaborating with DOER on LISSP, CET plays a crucial role in ensuring that the program reaches and benefits the intended audiences, particularly those in Environmental Justice communities, as CET's mission is to innovate, implement, and scale the environmental solutions that communities need to thrive.

To maximize the benefits for nonprofits participating in LISSP, CET will coordinate closely with the Mass Save program, an initiative sponsored by Massachusetts' gas and electric utilities and energy efficiency service providers, to deliver energy audits

[1] Environmental Justice Populations in Massachusetts, https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts

and evaluations. For customers of Berkshire Gas, Liberty Utilities, Unitil, National Grid, and Eversource, a Mass Save assessment and the completion of all recommended weatherization work is required to participate in LISSP. More information can be found in Section 6.1.

2. Program Scope and Objectives

2.1 Goals of LISSP

The Low-Income Services Solar Program is dedicated to achieving the following key goals:

- **Increase Access to Solar Energy for Nonprofits:** LISSP aims to make solar energy technology accessible to nonprofit organizations that serve low-income populations throughout the Commonwealth, ensuring that renewable energy resources are equitably distributed.
- **Reduce Energy Costs for Service-Providing Organizations:** By installing solar energy systems, LISSP helps nonprofits lower their operational costs, allowing them to allocate more resources toward their mission.
- **Enhance the Sustainability and Resilience of Community Services:** LISSP supports the long-term sustainability of essential services by improving the reliability and resilience of energy supplies for participating nonprofits.

2.2 Benefits for Participants

The Low-Income Services Solar Program is committed to creating the following benefits for participants:

- **Reduced Energy Costs:** Participants will experience lower energy bills, allowing them to allocate more funds towards supporting their primary services.
- **Enhanced Energy Resilience and Reliability:** When combined with battery backup, solar energy systems provide a more stable and reliable energy source in the event of grid outages or other disruptions.
- **Contribution to Environmental Sustainability:** By adopting renewable energy, participating nonprofits will reduce their carbon footprint and support broader environmental goals.

2.3 Customer Eligibility

To be eligible for the Low-Income Services Solar Program, nonprofit organizations must meet the following criteria:

- Essential Services: Nonprofits must provide critical services such as food security, houselessness support, or emergency shelter.
- Environmental Justice Focus: Nonprofits must serve Environmental Justice communities, as defined by the Executive Office of Energy and Environmental Affairs.
- Solar Energy System Installation: Nonprofits must install solar energy systems and adhere to all relevant technical standards and regulations. While energy storage is encouraged to enhance energy resilience and reliability, it is not mandatory. The program supports the inclusion of energy storage if it aligns with the specific needs and context of the project.
- LISSP is available for both Nonprofit Renters and Owners:
    - Owners: Nonprofits who own the building where the project is located and pay the utility bills for the site are eligible for full incentives.
    - Renters: Nonprofits who rent their space and pay the utility bills for the site will be reviewed by DOER and approved on a case-by-case basis. The nonprofit will need to provide documentation of a long-term lease for the building or other supporting evidence that the nonprofit will be the primary beneficiary of the solar installation.

2.4 Program Contact Information and Support

If you're not sure where to start, CET can provide program assistance including: site assessments, project and technical review, application assistance, and more. For questions about the program, or to connect with the team, please contact:

- Program Phone Number: (413) 624-6901
- Program Email: LISSP@cetonline.org
- Program Website: www.cetonline.org/programs/low-income-services-solar-program/

3. Available Funding and Incentives

3.1 Total Funding and Allocation

The Low-Income Services Solar Program provides substantial funding to support solar energy projects for nonprofit organizations serving low-income and EJ communities across Massachusetts:

Table 3: Funding

Mass Save Eligible Projects		
Project Size	**Production Offset (%)**	**Potential Offer***
System Size: <100kW	90-100%	100%
System Size: <100kW	70-89%	Up to 75%
System Size: >100kW	90-100%	Up to100%
System Size: >100kW	70-89%	Up to 75%
*Grant incentive capped at $500,000 per installation. Includes battery storage.		
Municipal Light Plant Projects*		
Project Size	**Production Offset (%)**	**Potential Offer****
System Size: <50kW	70-100%	100% up to $50,000
* Subject to MLP approval		
**One project per applicant		

Special provisions are in place for nonprofits using a low level of energy or with demonstrated financial need to ensure equitable access to funding. These provisions may include prioritizing these organizations or providing additional financial support to address unique challenges.

CET will assist in identifying and providing information about other available grants and funding opportunities that can help further reduce costs for the System Host.

An annual minimum of 10 grants will be awarded to nonprofits, with a focus on ensuring diverse geographic distribution throughout the Commonwealth. Grants will be awarded on a quarterly basis depending on applications and funding availability. Please find deadlines in Section 5.2.

3.2 Investment Tax Credit (ITC)

Nonprofits participating in LISSP may benefit indirectly from the federal solar Investment Tax Credit (ITC). Projects must be fully installed and functional before 2027. To assist nonprofits in understanding the ITC and how it can be applied to their solar projects, the following resources offer comprehensive overviews and practical guidance to help nonprofits navigate the complexities of the ITC and maximize the financial benefits for their solar energy projects:

- **Solar Energy Industries Association (SEIA) - Solar Investment Tax Credit (ITC):** This resource provides detailed information on the ITC, including eligibility, benefits, and how to leverage the credit for nonprofit solar projects.

3.3 Solar Massachusetts Renewable Target (SMART) Program

Nonprofit organizations participating in LISSP may be eligible for additional compensation under the SMART Program, which offers base compensation rates and adders that vary depending on project size, location, and type. For customers of Unitil, National Grid, and Eversource to be eligible for LISSP, participation in SMART is required. Customers of Berkshire Gas, Liberty Utilities, or Municipal Light Plants are not eligible for SMART, and therefore not required to participate. The new SMART program is available as of October 2025. The following resources provide an understanding of SMART Program benefits to eligible applicants:

- SMART Program Overview
- SMART Application Portal

3.3.1 Renewable Energy Portfolio Standard Class 1 Requirement

The Massachusetts Renewable Energy Portfolio Standard (RPS) requires retail electricity suppliers (both regulated distribution utilities and competitive suppliers) to obtain a percentage of the electricity they serve to their customers from qualifying renewable energy facilities. New renewable energy facilities are those that began commercial operation after 1997, generate electricity using certain technologies, including solar photovoltaic, and meet all other program eligibility criteria.

3.4 ConnectedSolutions

The ConnectedSolutions Program is a demand response initiative designed to reduce the electric energy load put on the grid during peak energy events. This program requires applicants to have a battery storage system in addition to a solar energy system in order to participate. Customers of Unitil, National Grid, and Eversource can

take advantage of this program. If you are a customer of Berkshire Gas, Liberty Utilities, or a Municipal Light Plant, you are not eligible for ConnectedSolutions. This offering is not required to participate in LISSP. More information can be found here: ConnectedSolutions.

4. Minimum Project Requirements and Legislative Compliance

4.1 Technical and Installation Standards

LISSP-funded projects must meet the following technical and installation standards to ensure performance, safety, and compliance:

- Regulatory Compliance: Projects must comply with all applicable local and state regulations governing solar energy and battery installations.
- Equipment Standards: All equipment used in the projects must meet minimum performance and safety standards to ensure reliability and efficiency.
- Interconnection Compliance: Interconnection is the process of connecting a distributed generation system to the electric grid. Prior to connecting, the distributed generation system owner must obtain written approval from the local utility in the form of an Interconnection Service Agreement and subsequent Authorization to Connect.

Minimum Design and Estimated Production Requirements

- Production Threshold: The photovoltaic (PV) project must be designed to produce at least 70% of the optimal annual energy output, based on site-specific conditions such as shading, azimuth, and inclination. The more energy a nonprofit offset, the higher the grant amount will be; see Table 3.
- Shading Analysis: A shading analysis must be conducted using an approved tool (e.g., Solmetric SunEye, Solar Pathfinder, Wiley ASSET, Aurora with LIDAR data, Bright Harvest, Scanifly). The analysis must be submitted for review and must demonstrate that the 70% production threshold is met before the project can receive technical approval. For systems with multiple arrays, the requirement applies to the weighted average of the entire system.
- Use of PVWATTS: Projects must use the PVWATTS tool to estimate optimal parameters, assuming 14% system losses, a 42-degree array tilt, and a 180-degree (True South) azimuth.

4.2 Legislative Background and Requirements

LISSP projects must comply with relevant legislative requirements, including:

- Massachusetts General Laws Compliance: Projects must adhere to Massachusetts General Laws, Part I, Title III, Chapter 29, Section 2LLLLL, which emphasizes clean energy initiatives.
- Priority for EJ Communities: The above law mandates prioritizing organizations that serve EJ communities, ensuring that the benefits of clean energy reach underserved populations.
- Technical Assistance: The program requires providing technical assistance to participating organizations to ensure compliance with both state and federal regulations.

5. Program Process Overview

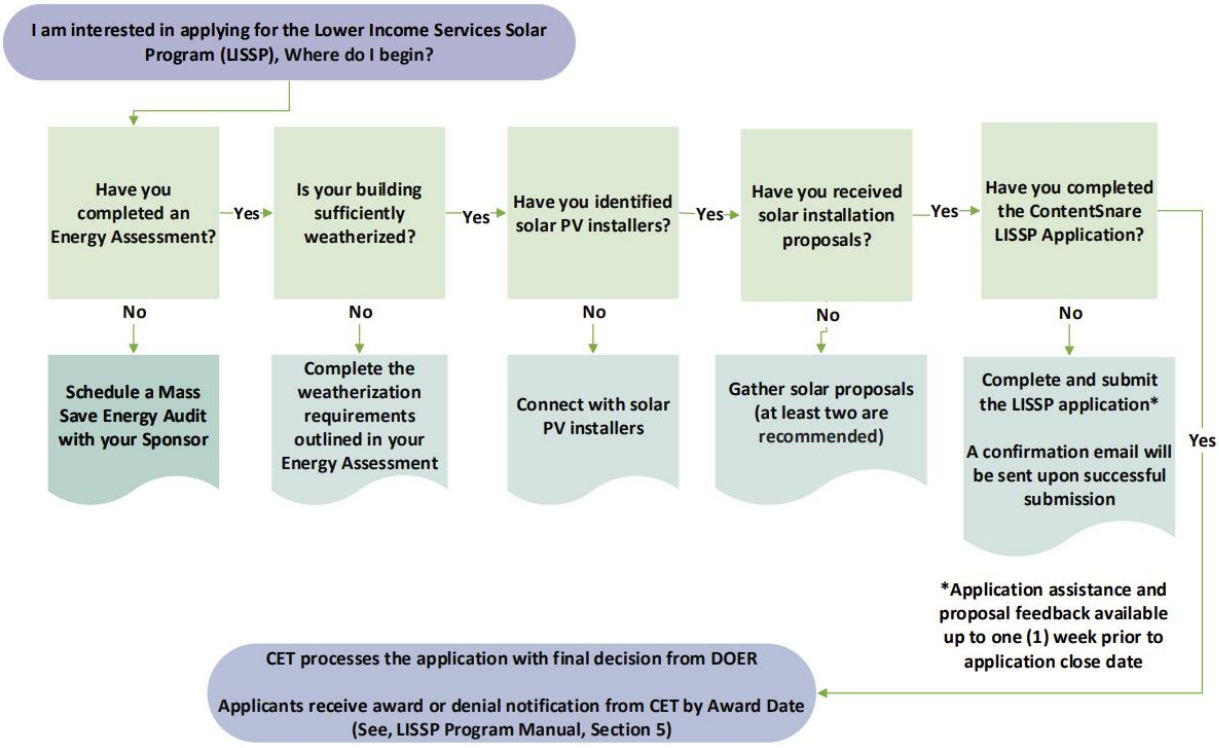

Figure 1: Program Process Overview

5.1 First Steps for Applicants

5.1.1 Initial Engagement:

Nonprofits are encouraged to engage with CET early in the process to receive guidance on eligibility and to ensure that their project aligns with the goals of LISSP. If needed, CET will assist nonprofits in assessing whether their proposed solar project meets the program's criteria and objectives before they apply. To ensure a smooth application process, nonprofits must:

- **Identify a Solar Project:** Applicants should begin by identifying a potential solar project at their facility that aligns with service delivery goals. CET can assist with preliminary assessments to ensure the project meets LISSP objectives.
- **Obtain Detailed Proposals:** Work with solar installers to obtain detailed proposals for the solar installation. CET encourages business owners to get multiple quotes and can provide resources for selecting installers.
- **Quantify Energy Generation and Savings:** The solar installer, with review from CET, will quantify the expected energy generation and potential cost savings of the solar project. This analysis will help determine the appropriate grant amount, emphasizing the impact on energy resilience for the nonprofit.

All weatherization recommendations must be complete before receiving proposals to ensure proper system sizing.

5.2 Application Submission to Program Administrator

5.2.1 Application Submission:

Nonprofits must submit their completed applications to CET by the quarterly deadline; see Table 4.

Document Submission: Applicants should carefully review, fill out, sign, and submit the Content Snare Application to CET for processing. Contact LISSP or submit a website form to request an application. For program contact details see Section 2.4, and for a sample application see Attachment A.

Applicants who apply before the cut-off date will receive assistance with incomplete applications; applications submitted the week of the cut-off date will not receive such assistance. Prior to award notification, applications are subject to a review and approval period subsequent to the application schedule, as follows:

Table 4: Deadlines*

Funding Round	Application Open Date	Application Close Date
01	October 1st, 2025	November 3rd, 2025
02	December 22nd, 2025	January 16th, 2026
03	March 2nd, 2026	March 31st, 2026
04	May 12th, 2026	June 30th, 2026

*Dates are subject to change, contact LISSP@cetonline.org to confirm
**CET will review 25 applications per period. Additional application submissions will be considered during the subsequent funding round.

5.3 Review and Approval by DOER

5.3.1 Comprehensive Review:

CET will review and submit the documentation and potential grant value to DOER for final approval. This review will assess the completeness of the application, the alignment of the project with LISSP goals, and the potential energy savings and resilience benefits the project offers. Projects will be evaluated on the above and will take into consideration the total system size, potential grant amount, energy production offset, and geographic location.

5.3.2 Approval Notification:

Once the review is complete, CET will notify the nonprofit of its application status. The System Host will receive information on the next steps, including any additional requirements and the timeline for disbursement of funds through a grant package. Applicants who are not accepted into the program will receive a follow-up email from CET with comments on the application. Potential reasons for denial include:

- The solar array does not offset at least 70% of the building's energy usage
- The nonprofit does not service Environmental Justice Communities
- The nonprofit does not provide eligible services
- The nonprofit has short lease terms

Application Approval and Award: CET will communicate approval and grant value for System Hosts. Applicants who are not accepted into the program will receive a follow-up email from CET explaining why. If eligible, CET will let the applicant know what updates they need to make to re-submit their application.

Review and Sign Program Documents: CET will provide the full grant package through SignNow for review and signature. The grant package will include the

completed application, Service Agreement, and Scope of Work, detailing all costs, expected savings, and responsibilities.

5.5 Installation and Interconnection

5.5.1 Coordination and Installation:

System Hosts will work with their selected solar installer to complete the installation process. This includes ensuring that the solar system is properly interconnected with the grid and complies with all relevant technical standards and regulations.

- Coordinate Installation: After receiving approval, System Hosts should coordinate with the selected solar installer to schedule the installation.
- Project Monitoring: CET will periodically check in with the installer to monitor the progress of the project installation at major milestones, including:
    - Permitting
    - Materials Acquisition
    - Installation (at the start and mid-way point)
    - Interconnection
    - Completion

5.6 Project Completion and Payment Process

Following the installation, CET, in collaboration with the installer, will perform a final inspection and verification of the system's operation. Once the system is confirmed to be fully operational and all program requirements are met, payment will be released to the system installer, completing the funding process.

6. Technical and Installation Standards

LISSP-funded projects must meet the following technical and installation standards to ensure performance, safety, and compliance:

6.1 Coordination with Mass Save

Part of CET's ongoing work with utility providers across the state to implement energy efficiency measures for businesses through the Mass Save program is to provide comprehensive support to nonprofits. Participation in the Mass Save program is required for customers of Berkshire Gas, Eversource, Liberty Utilities, and National Grid. This collaboration includes the following:

- Energy Assessments and Audits: CET will perform energy assessments to identify opportunities for energy efficiency improvements and solar energy integration, to align with Mass Save's guidelines.
- Rebates and Incentives: Nonprofits will be informed of available rebates and incentives through Mass Save, including rebates for energy-efficient equipment, lighting upgrades, and HVAC systems. Detailed information can be found on the Mass Save website: https://www.masssave.com/en/business/business-products-services-offers.
- Technical Support and Installation Services: CET will provide guidance throughout the installation of solar systems and energy efficiency measures, ensuring compliance with Mass Save standards.

By coordinating with Mass Save, LISSP aims to deliver a holistic approach to energy management, combining solar energy solutions with energy efficiency measures to achieve significant cost savings and environmental benefits.

6.2 Installation Requirements

6.2.1 Installation Requirements

- Regulatory Compliance: The PV project electrical work must be performed by a Massachusetts-licensed electrician. Projects must comply with all applicable local and state regulations governing solar energy installations.
- Equipment Standards: All equipment used in the project must meet minimum performance and safety standards to ensure reliability and efficiency.
- All installations must adhere to the most current recognized standards.
- Solar PV systems installed on sloped roofs should have a tilt and azimuth matching the roof pitch.
- Installations of ground- and pole-mounted arrays must have proper disconnecting equipment to isolate DC current as needed.
- PV systems should not be connected directly to a standby generator unless the generator is designed to operate in parallel with the PV system. Doing otherwise may void warranties.
- Areas where wiring passes through ceilings, walls, or other parts of the building must be sealed properly after installation.
- Thermal insulation in areas with installed wiring must be restored to its original condition or better.

6.2.2 Component Standards

All installed electrical components must meet recognized standards for safety and reliability. They should be listed by a nationally recognized testing laboratory or comply with equivalent standards.

6.2.3 Owner's Manual and Training

An owner's manual with all operating and maintenance instructions must be provided for the PV project. The manual should be easily accessible and include key details like serial numbers, warranty information, and basic operational instructions.

Owners must receive basic training on the system, including maintenance, troubleshooting, and energy production reporting (for both the PV and energy storage if applicable). Owners must also participate in the Massachusetts Renewable Target (SMART) program unless they are in a municipal light district.

6.3 Best Practices / Common Installation Violations

Work Quality: All work must be completed neatly, professionally, and timely.

Wire Connectors: Twist-on wire connectors (wire nuts) should not be used in any outdoor enclosure unless listed for use in damp/wet locations. Proof of listing must be provided during inspection if applicable.

Warning Labels: Warning labels, as required, must be posted on disconnects, panel enclosures, DC raceways, and accessible junction boxes. The labels must be suitable for the environment in which they are installed.

Raceway Sealing: Raceways passing from the interior to the exterior of a building must be filled with approved material to prevent the circulation of warm air.

Terminal Ratings: Terminal ratings and conductor size limitations must be followed to avoid common violations, such as multiple conductors under a terminal listed for a single conductor or undersized conductors for the terminals.

Plaque or Directory: A permanent plaque or directory denoting the location of all electric power source disconnecting means must be installed at each service equipment location.

Photographic Documentation: It is recommended the installer take photos of specific system components for all rooftop solar arrays, including the module frame grounding method, array grounding method, array wire management, interior of any rooftop enclosures, and exterior of any rooftop enclosures. These photos should be kept on record with the primary installer and made available upon request.

Surge Protection: It is strongly recommended, but not required, that PV projects installed under certain programs include appropriate surge arresters or other means to protect components from lightning and surge events.

6.4 PV Project and Equipment Warranty Requirements

6.4.1 Installer Warranty

All PV projects must have a minimum 5-year labor warranty provided by the installer to protect the system owner against defective workmanship, PV project or component breakdown, or degradation in electrical output exceeding 15% from the original rating during the warranty period. The warranty must cover the entire PV project, including PV modules, inverters, and energy storage systems if applicable, and provide for no-cost repair or replacement of any components during the warranty period.

6.4.2 Manufacturer Warranty

Photovoltaic Modules: Minimum of one-year product warranty from the date of sale to the first system owner for workmanship and materials, plus a minimum performance warranty of 20 years within which the module will produce, under standard test conditions, at least 80% of the minimum rated power at the time of sale.

Inverters: Minimum of 10 years product warranty from the date of sale to the first system owner for workmanship and materials.

Energy Storage Components (if applicable): Minimum of 10 years product warranty from the date of sale.

Revenue Grade Production Meters: 2-year product warranty.

Mounting Equipment: 5-year product warranty.

6.4.3 Exception

Warranty requirements do not apply to components of a Data Acquisition System, except for the revenue-grade meter. Equivalent warranties or service contracts are strongly recommended for such equipment.

6.5 Additional Solar PV Equipment Requirements

Equipment Characteristics: All electrical equipment funded in whole or in part by LISSP must be new, except remanufactured revenue-grade meters for PV systems of 10 kW capacity or less. Equipment must be listed and compliant with recognized

standards such as those of Underwriters Laboratory (UL) and Electronics Engineers (IEEE) standards, or equivalent.

Photovoltaic Modules: Must be certified by a recognized testing laboratory to meet UL Standard 1703.

Inverters: Must be certified to meet IEEE 1547 and UL Standard 1741.

California Energy Commission Listing (CEC): All modules, inverters, and production meters must be on the approved list of eligible renewable energy equipment: https://solarequipment.energy.ca.gov

6.5.1 Exceptions

A Data Acquisition System does not need to be UL listed.

Reconditioned meters must be recertified to meet accuracy standards.

Systems should meet the new SMART 3.0 Standards

Appendix

Attachment A: Preview of Application Questions

Section 1: Applicant Information

- Are you a nonprofit entity or solar installer?

1.2 Installer Information

- Business Name
- Email address
- Phone number
- Business address

1.3 Nonprofit Contact Information

- Nonprofit name
- Nonprofit primary contact full name (First and Last)
- Nonprofit primary contact email address
- Nonprofit primary contact phone number
- Nonprofit project building address

Section 2: Initial Eligibility Information

- Is the business a nonprofit organization providing critical services?
    - Please briefly explain the services provided by the nonprofit.
    - Please briefly explain the food security support services provided by the nonprofit.
    - Please briefly explain the houselessness support services provided by the nonprofit.
    - Please upload proof of status as an Emergency Shelter.
- Is the nonprofit located within and/or serve environmental justice communities?
    - Please provide list of communities served.
- Please provide a document that states the designation of the organization as a nonprofit.

Section 3: Program Requirements Documentation

- Is the building the nonprofit operates out of rented or owned?
- If rented, please upload documentation of the lease term for the building.
- Who is the electric utility provider?
- Please provide the name of the electric utility provider.

- If LISSP funding is awarded to this solar installation project, SMART program participation is required for Unitil, National Grid, and Eversource customers.
- Please upload a copy of the most recent electric utility bill.
- Has the building had an Energy Audit/Assessment within the past 12 months?
- Please upload supporting documentation for the Energy Audit/Assessment.
- Has the nonprofit completed any recommended weatherization work based on the energy audit/assessment? (E.g. Insulation, weatherstripping, air sealing, etc.)
- Please provide an explanation of the building's current Energy Audit/Assessment or weatherization status.
- Please upload all supporting documentation related to the installation of the building's weatherization measures identified in the provided energy assessment.
- Has the nonprofit successfully installed a solar PV system in the past?
    - Please identify the size and usage of current solar PV system.
- Are there any barriers preventing the nonprofit from installing a solar PV system?
    - Please explain the barrier in detail.
    - Please upload any barrier documentation.

<u>Section 4: Solar Project Details and Information</u>

- What is the approximate square footage of the building the solar will be installed on?
- What type of solar installation is the nonprofit interested in installing? Check all that apply.
- Has the nonprofit received a proposal from a solar installer(s)?
- Please list all solar installer company name(s).
- Please upload all solar installer proposal(s).
- Project Size (kW AC):
- Does the proposal account for installation of weatherization measures identified in the energy assessment provided in Section 1.5 Program Requirements?
- Has the solar installer conducted a shading analysis?
- Please upload the shading analysis (if separate from the solar installer proposal).
- Has the nonprofit applied to any other funding sources for this project?
    - Please list any additional funding sources and total amounts, including applied to and already awarded.

Attachment B: Participant Agreement

Agreement for Low Income Services Solar Program Services from CET

This Agreement is entered into on this day of _____, 2025 (The Effective Date) between the Center for EcoTechnology, Inc. (CET) located at 17 New South Street, Old School Commons Northampton, MA 01060, and _____ (Customer) located at _____.

Purpose

The goal of this Agreement is to provide one or more services (the Service). The specific Service(s) to be provided are described in the attached Scope(s) of Work (SOW). Based on recommendations identified as a result of the Service, the Customer may be eligible to receive a LISSP Grant toward implementation of recommended measures. Grants are public funds provided by the Department of Energy Resources (the Program Funders).

Customer's Responsibilities

The Customer agrees to meet the responsibilities outlined below, as well as those listed in the attached SOW(s):

Identify an installer via the Solar Installers list and work to obtain a detailed proposal for the solar system from them

Allow representatives of LISSP, including employees of CET and the Program Funders, access to the proposal to review the documentation as required in reference to the SOW.

Respond to all communications from CET and Program Funders within 72 hours, unless specified otherwise in the attached SOW.

Utilize all funds from CET for activities as listed in Attachment A, remitting to specified Contractor(s) as indicated.

Allow Contractor(s) to install or perform the measure(s) with the understanding that the Contractor(s) will have the responsibility to install or perform measures in accordance with required regulation and best practice; acquire all necessary permits and/or variances; comply with all relevant local, state and federal laws, regulations,

and by-laws applicable to the construction, installation, and/or performance of the measure(s); and ensure that all work is performed by appropriately licensed contractors as applicable.

Keep CET informed of the status of the installation(s) at key milestones, including at the time of permitting, materials acquisition, installation interconnection, and completion to permit CET to monitor progress and confirm project completion.

Take sole responsibility for any tax liability for the goods and services received through the program pursuant to state and federal income tax codes.

Inform CET of any notices of funding from other sources, project implementation, and follow up energy use and savings information that CET advises Customer is required for CET's reporting to DOER funders.

In the event that the Customer fails to satisfactorily perform all the obligations of this Agreement in the time periods specified herein, CET reserves the right to cancel this Agreement and the subsidized Services at its sole discretion. The Customer cost-share will not be refunded if CET has already performed the Service.

Terms and Conditions

Signed Agreement: This offer is valid for sixty (60) days from the date of this letter or until CET withdraws the offer, whichever comes first. The Customer must sign and return this Agreement within that time.

Confidentiality: Because public funds are utilized for the Services rendered herein, CET is obliged to provide Program Funders the names and incentive amounts provided on behalf of the Customer under this program. CET is committed to protecting the Customer's private and personally identifiable information and will therefore seek the express permission of the Customer in the event that any information would be disseminated for other purposes, including marketing of the program.

Conflicts of Interest: Customer represents that s/he is free to enter into this Agreement, and that this engagement does not violate the terms of any agreement between the Customer and any third party. During the term of this Agreement, Customer shall devote as much of his/her productive time, energy, and abilities to the performance of his/her duties hereunder as is necessary to perform the required duties in a timely and productive manner. CET will inform the Customer of any conflicts of interest should they arise during the delivery of the Services provided for under this Agreement.

Independent Contractor Relationship: This Agreement does not create an employer and employee relationship, partnership, or joint venture between the parties. Each party agrees that it is solely responsible for, and will pay all the costs of conducting its business independently of the other, including but not limited to the expense and responsibility for obtaining any applicable insurance and any required licenses, permits, assessments, or taxes. Each party shall independently determine the days and hours needed to complete its obligations, as well as the number of employees or agents required. Each party shall bear sole responsibility for the wages, fringe benefits, taxes, work schedules, and working conditions of any employee or agent it may engage.

Term: This Agreement shall commence upon the Effective Date and shall continue in full force and effect until the Service(s) have been completed or upon cancellation of the Service(s) or program, whichever comes first. Either party may terminate this Agreement upon thirty (30) days prior written notice to the other at the mailing address listed above. Customer's termination of this Agreement will not affect Customer's responsibility for the payment of Services satisfactorily performed for the Customer prior to termination date.

Modification in Cost Paid by Applicant: Estimates for Services provided for under this agreement are based on information provided by the Customer to CET. In the event that CET determines that expenses of this Service exceed the estimate upon which this agreement is based, CET will submit a written cost revision request to Customer. If Customer and CET agree, additional funds may be awarded if eligible.

Modification or Amendment of this Agreement: No amendment, change, or modification of this Agreement shall be valid unless executed in writing and signed by the parties hereto.

Transferability: Neither party may assign or transfer any rights or obligations under this agreement, including by the sale or lease of its assets.

CET's Right to Stop Services: In the event Customer persistently fails to perform his/her obligations under this Agreement, CET may cease providing Services and Funding to Customer until Customer has given CET satisfactory and reasonable assurances that it will properly resume and diligently perform the duties identified in this Agreement. If CET intends to cease providing Services, it must notify Customer via certified mail, return receipt requested, at the mailing address listed above.

Severability: If any provision of this Agreement, or any portion thereof, is held to be invalid and unenforceable, then the remainder of this Agreement shall nevertheless remain in full force and effect.

Warranties: CET does not endorse, guarantee, or warrant any particular contractor, manufacturer, product, or process. CET does not make any guarantees or representation of any kind regarding the results to be achieved by the implementation of any finding, recommendation, process, or suggestion provided.

Limitations and Waiver of Liability: CET shall not under any circumstances be liable to any party for incidental or consequential damages, or for any sums beyond the amount paid for CET's Services. Customer acknowledges that CET is providing financial assistance to subsidize the cost of the Service(s) described in the attached SOW. In consideration for receiving this financial assistance from CET, Customer agrees, to the fullest extent permitted by law, to release CET and its employees and agents from any and all liability for any claims arising out of this Agreement from any cause or causes. Such causes include, but are not limited to, CET or its agents' negligence, errors, omissions, strict liability, breach of contract, or breach of warranty.

Applicant agrees to hold CET harmless for any loss or damage that may result from the Applicant's decision to implement any one or more of the suggestions or recommendations from the Report and for any claims arising out of this Agreement from any cause or causes.

Indemnification: To the fullest extent permitted by law, and subject to the limitations expressed in Section K, the parties shall indemnify, defend, reimburse, and hold harmless each other and their successors, directors, officers, employees, and agents from, for, and against any and all allegations, claims, liens, liabilities, losses, demands, damages, expenses, suits, actions, proceedings, judgments, and costs of any kind whatsoever, whether actual or alleged and whether directly incurred or from a third party, including, without limitation, settlement costs, court costs, and attorneys' and expert witness fees and expenses, arising out of, or relating to: negligence or willful misconduct of the indemnifying party; infringement or misappropriation of any intellectual property right of any third party by the indemnifying party; or breach of this Agreement by the indemnifying party.

Non-discrimination and Civil Rights: The Customer may not engage in discriminatory employment practices and shall be in compliance of all applicable federal and state laws, rules, and regulations governing fair labor and employment practices.

Non-solicitation: Customer agrees that during the Term of this Agreement and for a period of one (1) year thereafter (the "Non-solicitation Period") neither Customer nor any of its officers, directors, owners, employees, or agents will suggest to a business relation of CET that it should reduce or terminate the business or relationship with CET. During this Non-solicitation Period neither Customer nor any of its officers, directors, owners, employees, or agents will, without the express written consent of CET (which may be withheld or conditioned at CET's sole discretion), solicit any employee of CET to become an employee or independent contractor of any other person or entity, suggest to an employee of CET that said employee should reduce or terminate their relationship with CET, or hire as an employee or independent contractor, any person who was an employee of CET at any time during the Term of this Agreement. The limitations in this section shall not apply to any employee who responds to a general solicitation of employment not specific to or targeted at employees of CET. Customer hereby acknowledges and agrees that the limitations contained in this section are reasonable in scope and time and that they provide fair and equitable protection of the interests of CET.

Governing Law: This Agreement shall be governed by and construed under the laws of the Commonwealth of Massachusetts, without regard to conflict of law rules.

Arbitration: Any dispute or other claim related to this Agreement, its interpretation or alleged breach, or to the existence, scope, or validity of this Agreement, or to the validity of this arbitration provision, shall be resolved by arbitration through the American Arbitration Association in accordance with its Commercial Arbitration Rules. Judgment upon the award rendered pursuant to such arbitration may be entered in any court with jurisdiction. The parties acknowledge that mediation helps parties settle their disputes prior to arbitration and any party may propose mediation whenever appropriate through any mediator mutually agreed to by the parties. Any dispute or claim for which a party seeks injunctive relief may be brought in the state and federal courts in Massachusetts, and such courts shall be the proper and exclusive forum for any such action.

Remedies: The parties acknowledge that the damages to the affected party in the event of the other party's breach of the confidentiality, indemnification, or warranty obligations of this Agreement would be irreparable and extremely difficult to estimate, making any remedy at law or in damages inadequate. In addition to any other right or remedy available to it, either party shall be entitled to an injunction restraining such breach or threatened breach and to specific performance of any of those provisions and no bond or other security shall be required.

Attorney Fees: In the event an action is brought to enforce any provision of or declare a breach of this Agreement, the prevailing party shall be entitled to recover, in addition to any other amounts awarded, reasonable legal costs including attorney fees the prevailing party incurs, including those related to or arising from any appeal.

Entire Agreement: This document, together with any documents incorporated herein by reference, constitutes the entire understanding and agreement between the parties. Any and all prior agreements, understandings, and representations, whether oral or written, are hereby terminated and canceled in their entirety and are of no further force and effect. No oral or written communications or negotiations that may have occurred before the execution of this Agreement will be considered to be a part of the agreement.

Miscellaneous: All notices given under this Agreement must be in writing. A notice is effective upon receipt and shall be sent via one of the following methods: delivery in person; overnight courier service; certified or registered mail, postage prepaid, return receipt requested, addressed to the party to be notified at the below address; or by email at the below email address; or in the case of either party, to such other party, address or email address as such party may designate upon reasonable notice to the other party. Any change in either party's mailing address or email address must be provided by written notice to the other party.

Neither party may assign its rights and obligations under this Agreement without the prior written consent of the other party. The Customer may not delegate the performance of any of its duties hereunder without prior written consent of CET, which shall not be unduly withheld.

No party to this agreement shall be liable for a delay in performing its obligations under this Agreement if that delay is caused by a force majeure event.

Nothing in this Agreement shall confer any rights or liabilities upon any person that is not a party to it, unless expressly provided for in a SOW issued pursuant to this Agreement.

Acceptance of Agreement: The individual parties signing this Agreement hereby warrant and represent that they have the proper corporate or other authority necessary to execute this Agreement on behalf of their respective entity.

SIGNATURES ON NEXT PAGE

IN WITNESS WHEREOF, the parties hereto have signed this Agreement, or caused it to be signed by their duly authorized representative, as of the day and year noted below.

SIGNED on behalf of CET by: _____
Date: _____ (Signature)

CET MAILING ADDRESS: 17 New South Street, Suite #304 Northampton, MA 01060

CET EMAIL ADDRESS: LISSP@cetonline.org

SIGNED on behalf of Customer by: _____ _____

Date: _____ (Signature)

PRINTED name of Customer: _____

TITLE of Customer: _____

MAILING ADDRESS OF CUSTOMER:_____

EMAIL ADDRESS OF CUSTOMER:_____

ATTACHMENT A

List of Measures/Activities

Location (Street Address, City, State, Zip)	
System Size	
Battery?	
Contractor	
Cost of Project	
Funds Designated	

Notes: Funds to be paid directly to the contractor

Attachment C: Technical Requirements Resource

Technical Support Manual

1.1 Initial Review

CET will begin with a thorough analysis of the proposed system size to ensure it adequately meets the nonprofit organization's energy needs. We will verify the expected energy output against the system's specifications and the site conditions provided by the System Installer. We will confirm that all assumptions and calculations made by the System Installer are accurate and align with the project's requirements.

1.2 Financial Analysis and Deal Structure

CET will review the financial aspects, including the System Installer's projected equipment, installation, and maintenance costs, and the expected displacement of electricity costs. We will ensure that this financial analysis confirms the economic viability of the project.

1.3 Site Assessment

CET will verify the System Installer evaluation of the site's solar exposure and shading, utilizing tools such as Solmetric SunEye, or Solar Pathfinder to ensure sufficient sunlight for optimal energy production. We will review the structural integrity of the building to confirm it can support solar panels, with all rooftop-mounting components checked against manufacturer specifications and approved construction documents. We will identify any potential environmental or zoning issues that could impact the installation and operation of the solar system and confirm that all necessary permits and approvals are obtained.

1.4 Energy Yield Estimation

CET will utilize solar modeling tools and historical weather data to independently estimate the system's performance. We will confirm the System Installer's energy production estimates using industry-standard tools such as PVSyst or SAM.

1.5 Technical Specifications

CET will review the technical details of the proposed solar equipment, including the efficiency and reliability of solar panels, inverters, and other components. We will ensure that the technology aligns with industry standards and is suitable for the specific site conditions. We will verify that the specifications cover components needed for both off-grid and grid-tied systems.

1.6 Regulatory Compliance

CET will review the System Installer's proposal to confirm compliance with local, state, and federal regulations. We will ensure that all necessary permits and approvals are obtained before installation proceeds. We will also review any potential legal or regulatory challenges that could affect the project's success.

1.7 Environmental Impact Assessment

CET will calculate the emission reductions associated with the solar project. We will evaluate the potential benefits of bundling other measures, such as weatherization, heating electrification, or waste diversion, to maximize environmental benefits.

1.8 Final Evaluation

Finally, CET will review the final proposal to ensure it aligns with the client's objectives and program guidelines. We will prepare the completed package for submission with the application for DOER review.

Technical Support Checklist

This checklist is intended to help solar contractors ensure full compliance with LISSP Technical and Installation Standards prior to submission. Each item corresponds to key technical and documentation requirements typically reviewed during design approval and post-installation QA.

1.1 Regulatory & Equipment Standards

- All installations must comply with local and state regulations governing solar PV systems.
- All electrical work must be performed by Massachusetts-licensed electricians.
- All equipment must meet minimum performance, safety, and certification standards.
- Modules must be UL 1703 certified.
- Inverters must be IEEE 1547 and UL 1741 certified.
- All modules, inverters, and meters must appear on the CEC (California Energy Commission) approved list.
- Data acquisition systems do not require UL listing (exception).
- Reconditioned meters must be recertified for accuracy (if applicable).

1.2 Minimum Design & Production Requirements

- PV systems must be designed to produce at least 70% of optimal annual energy output.
- Systems must meet a minimum 70% TSRF (Total Solar Resource Fraction).

- Approved shading tools: Solmetric SunEye, Solar Pathfinder, Wiley ASSET, Aurora with LIDAR, Bright Harvest, or Scanifly.
- Shading analysis must be submitted and approved prior to installation.
- Weighted TSRF average must meet threshold if multiple arrays are used.
- PVWatts or PVSyst modeling is required to estimate production.
- Standard assumptions: 14% system losses, 42° tilt, 180° azimuth (True South).

1.3 Installation Practices

- Roof-mounted systems: tilt and azimuth must match roof pitch.
- Ground and pole-mounted systems: include proper DC disconnects.
- PV systems must not connect directly to standby generators.
- All penetrations must be sealed and insulation restored to original or better condition.

1.4 Warranty Requirements

- Installer labor warranty: minimum 5 years covering workmanship, system breakdown, and major degradation (>15%).
- Manufacturer warranties: PV modules (20 years), inverters (10 years), mounting equipment (5 years).

1.5 Owner Documentation & Training

- Owner's manual must include serial numbers, warranty details, and operation instructions.
- Training must cover maintenance, troubleshooting, and system monitoring.
- Monitoring data (for Energy Storage Adders): report 15-minute interval data annually.
- Cycle batteries 52 times per year or participate in ConnectedSolutions.

1.6 Best Practices & Common Violations

- Workmanship must be neat and professional.
- Labeling and signage required on disconnects, junction boxes, and panel enclosures.
- No twist-on connectors in outdoor enclosures unless rated for wet conditions.
- Seal raceways to prevent air circulation and use proper conductor sizes.
    - Permanent plaque must show all disconnect locations.
- Photo documentation recommended for grounding, wire management, and enclosures.
- Production estimates should assume 14% system losses, 42° tilt, and 180° azimuth (True South).

Appendix I: List of Solar Installers

Non-exhaustive list of solar installers.

Ace Solar
16 High Street Suite 300
North Andover, MA 01845
Phone Number: (844) 369-6747
Casey Bolduc – Director of Marketing
casey@myacesolar.com

Clean Earth Energy
42 Sutton Street
Weymouth, MA 02188
Phone Number: (781) 910-4145
Colin Robichaud – Co-Founder
colin@cleanearth.energy

East Coast Solar LLC
22 Dallas Street
Worcester, MA 01604
Phone Number: (508) 615-8888
Mike Logan – Owner
mike@eastcoastsolar.com

One Way Development, Inc.
67 Kemble Street, Suite 1.1
Boston, MA 0119
Phone Number : (617) 594-9523
Abraham Gonzalez – President
agonzalez@onewaydevelopment.com

Resonant Energy
109 Kingston Street 2nd floor
Boston, MA 02111
Phone Number: (617) 237-6301
Sanne Wright
sanne@resonant.energy

RISE Engineering, RISE Group, Inc.
765 Attucks Lane
Hyannis, MA 02601
Phone Number: (401) 467-6454 x6172
Tom Champlin – Project Manager
tchamplin@riseengineeing.com

Sunbug Solar/Revision Energy co
66 Westfield Industrial Park Road
Westfield, MA 01085
Phone Number: (413) 884-1000
Lydia Berry – Community Engagement Coordinator
lberry@revisionenergy.com

Valley Solar
116 Pleasant Street Suite 321
Easthampton, MA 01027
Phone Number: (413) 584-8844
Mike Shields – Vice President
mshields@valleysolar.solar

PV Squared Solar
311 Wells Street
Greenfield, MA 01301
Phone Number: (413) 772-8788
Rachel Levey – Board Member
rachell@pvsquared.coop

Working Power Inc.
10325 Kensington Pkwy #561
Kensington, MD 20895
Abigail Despres
abigail@workingpower.com