

Greenhouse Gas Reduction Fund
Solar for All
State of Alaska Solar for All Program
Work Plan
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Definitions and List of Acronyms

Alphabetical List of Acronyms

- **AC:** The Alaska Center
- **ACEP:** Alaska Center for Energy and Power
- **AEA:** Alaska Energy Authority
- **AGC:** Associated General Contractors (of Alaska)
- **AHFC:** Alaska Housing Finance Corporation
- **AKSFA:** Alaska Solar for All
- **AMI:** Area Median Income
- **ANTHC:** Alaska Native Tribal Health Consortium
- **ARCUS:** Arctic Research Consortium of the United States
- **ASEC:** Alaska Sustainable Energy Corporation (the State of Alaska's Green Bank)
- **AVEC:** Alaska Village Electric Cooperative
- **AVTEC:** Alaska Vocational Technical Center
- **AWIB:** Alaska Workforce Investment Board
- **AWP:** Alaska Works Partnership
- **BMON:** Building Monitoring System (web-based software)
- **CCHRC:** Cold Climate Housing Research Center
- **CEA:** Chugach Electric Association
- **CEJST:** Climate & Economic Justice Screening Tool
- **CO₂:** Carbon dioxide (gas) equivalent
- **COS:** City of Seward
- **CR(s):** Circuit Riders
- **DOI:** Department of the Interior
- **DOI NICRA:** The Alaska Energy Authority's Negotiated Indirect Cost Rate Agreement with the Department of the Interior
- **EPA:** Environmental Protection Agency
- **FY:** Fiscal Year
- **GVEA:** Golden Valley Electric Association
- **HEA:** Homer Electric Association
- **HER:** Home energy rebate
- **IBEW:** International Brotherhood of Electrical Workers
- **IPP:** Independent Power Producer
- **ITC(s):** Investment Tax Credit(s)
- **kW:** Kilowatts
- **kWh:** Kilowatt-hours
- **LIDAC(s):** Low-Income and Disadvantaged Community(ies)
- **LMI:** Low-to-Middle Income
- **MEA:** Matanuska Electric Association
- **MOA:** Memorandum of Agreement
- **MTDC:** Modified Total Direct Cost
- **MW:** Megawatts
- **MWh:** Megawatt-hours
- **NCA(s):** Non-Compete Agreement(s)

- **NICRA:** Negotiated Indirect Cost Rate Agreement
- **NECA:** National Electrical Contractors Association
- **NOFO:** Notice of Funding Opportunity (as put forth by the Environmental Protection Agency in their Solar for All Program announcement)
- **NREL:** National Renewable Energy Laboratory
- **NREL-F:** National Renewable Energy Laboratory, Fairbanks Campus
- **NWAB:** Northwest Arctic Borough
- **O&M:** Operations and Maintenance
- **PMP:** Project Management Plan
- **PV:** Photovoltaic
- **RFP:** Request for Proposal
- **SFA:** Solar for All
- **TBD:** To be decided
- **TCC:** Tanana Chiefs Conference
- **PACE:** Powering Affordable Clean Energy
- **PCE:** Power Cost Equalization (PCE)
- **PTC(s):** Production Tax Credit(s)
- **QAPP:** Quality Assurance Project Plan
- **QMP:** Quality Management Plan
- **RCA:** Regulatory Commission of Alaska
- **RECR(s):** Renewable Energy Circuit Rider(s)
- **REF:** Renewable Energy Fund
- **RHA(s):** Regional Housing Authorities
- **RurAL CAP:** Rural Alaska Community Action Program
- **PolarTREC:** Teachers and Researchers Exploring and Collaborating
- **TREC2:**
- **TAP:** Technical Advisory Panel
- **UA:** University of Alaska
- **WAP:** Weatherization Assistance Program

Alphabetical Longform Definitions

AKSFA: Alaska Solar for All (AKSFA) is the name of the program administered under the EPA Solar for All Grant which the Alaska Energy Authority is the lead applicant, and the Alaska Housing Finance Corporation is a co-applicant.

BMON: The Building Monitoring System, an AHFC in-house developed, web-based, building monitoring software, originally developed to find ways to reduce energy use and improve the maintenance of buildings. The application has a straightforward user interface, but includes histograms and hourly profile charts for data analysis.

Categorical Eligibility: As defined in the SFA Workplan Overview Resource, page 12-- “Categorical eligibility consists of obtaining proof of household participation in a needs-based Federal, State, Tribal, or utility assistance program with income limits at or below the qualifying income level for the program.

IPP (Independent Power Producer): An independent power producer (IPP) is a legal entity which is not a public utility, but which owns facilities to generate electric power for sale to electric utilities or end

users under a power purchase agreement as defined by the U.S. Federal Energy Regulatory Commission and the State of Alaska, and as allowed for under Alaska Administrative Code, title 3, 101.160.

LIDAC(s): Low-Income and Disadvantaged Community(s) under the definition put forth in the EPA Notice of Funding Opportunity (NOFO). LIDAC will be applied for the “Community Solar” program as defined by the *Climate & Economic Justice Screening Tool (CEJST) mapping tool*. The LIDAC definition for residential solar is as yet undecided and will be developed in the planning year, but LIDAC residential solar applicants will need to be selected under some combination of the qualifiers put forth in the NOFO labeled as **(c)** *Geographically Dispersed Low-Income Households* and **(d)** *Properties Providing Affordable Housing*.

PCE (Power Cost Equalization): The PCE program provides economic assistance to communities and residents of rural electric utilities where the cost of electricity can be three to five times higher than for customers in more urban areas of the state. AEA, along with the Regulatory Commission of Alaska (RCA), administers the program that serves 82,000 Alaskans in 193 communities that are largely reliant on diesel fuel for power generation.

The PCE program benefits rural communities by lowering the electricity costs paid by customers, which in turn helps to ensure the sustainability of remote economies dependent on available, reliable, centralized power.

The PCE program reduces the electric rates paid by rural consumers to levels comparable to those paid by consumers in Anchorage, Fairbanks, and Juneau. The program reimburses the utility for credits it has extended to its customers. This happens after the utility reports its sales and provides a customer ledger to AEA. AEA reviews the utility monthly report (UMR) and pays the utility based on rates calculated by the state’s utility overseer, the RCA. The RCA determines if a utility is eligible to participate in the program and calculates the rate that the PCE program reimburses each eligible utility. AEA determines the eligibility of community facilities and residential customers and provides reimbursement to the electric utility for the PCE credits extended to customers.

The PCE program is funded by earnings of the PCE Endowment Fund. Alaska Statute 42.45.085 provides that five percent of the PCE Endowment Fund’s three-year monthly average market value may be appropriated to the PCE Program. It has only been in recent years that the five percent draw on the endowment has been sufficient to fully fund PCE payments.

Railbelt: The Railbelt refers to the regions of Alaska which have been historically accessible by rail. The Railbelt is the inter-connected electrical grid best defined as the service areas of four electric cooperatives and one municipal-owned utility, and extends from the Kenai Peninsula, north to Anchorage, the Matanuska-Susitna valley, Fairbanks, and then south along the Alaska Highway to Delta. The Railbelt encompasses the service territories of Golden Valley Electric Association (GVEA), Matanuska Electric Association (MEA), Chugach Electric Association (CEA), Homer Electric Association (HEA), and the City of Seward (COS). Approximately seventy-five percent of Alaska’s population lies within the Railbelt region.

Introduction

The Alaska Solar for All (AKSFA) program is a state-led program directed at increasing access to solar-electric power for low-income and disadvantaged or underserved communities across Alaska. The Alaska Energy Authority (AEA) has been awarded a \$62.45 million grant from the EPA (Environmental Protection Agency) under the Greenhouse Gas Reduction Fund Solar for All (SFA) program to help with this mission.

AEA, along with co-applicant and partner, the Alaska Housing Finance Corporation (AHFC), will deploy funding in support of solar photovoltaic (PV) generation across Alaska, focusing on residential/multifamily and rural community-scale projects that directly benefit underserved homes and communities. AHFC will manage all “residential rooftop solar” installations, as defined by the EPA, mostly along the primary grid of Alaska known as The Railbelt. AEA will concentrate on the rural electrically islanded communities across the state, which face unique challenges, such as reliance on diesel fuel generation for primary power and the associated fuel transportation and storage without road access. Both entities throughout the program will aim to create high-quality jobs, foster local workforce development, and support long-term sustainability of these projects through community engagement.

This initiative will reduce greenhouse gas emissions, provide access to solar-electric power for low-income and disadvantaged communities (LIDACs), and develop the local Alaskan workforce. By addressing both environmental and economic challenges, the AKSFA program aims to deliver meaningful benefits and promote a more equitable and resilient energy future for all Alaskans.

Project Narrative and Lines of Effort

The AKSFA initiative will be executed through two main lines of effort: community solar and residential/multifamily solar. Each line of effort has specific goals, strategies, and target beneficiaries.

- **Community Solar:**
 - **Objective:** Under the EPA SFA grant provision for “Community Solar”, deploy community-scale solar PV projects in rural and remote areas of Alaska with battery energy storage and energy efficiency implementation.
 - **Strategy:** Collaborate with local community leaders, tribes, and cooperatives to develop and install solar PV systems that can support islanded microgrids.
 - **Target Beneficiaries:** LIDAC residents in rural (non-Railbelt) Alaska, as defined by the *Climate and Economic Justice Screening Tool* (CJEST) mapping tool, including residents of Alaska Native communities.
 - **Partners:** Local utilities, native corporations, tribal organizations, local governments, and local community organizations.
- **Residential/Multifamily Solar:**
 - **Objective:** Under the EPA SFA grant provision for “Residential Rooftop Solar”, install rooftop and/or ground-mounted solar PV systems for individual residences or multifamily properties, focusing on low-income households.
 - **Strategy:** Work with licensed and insured solar PV installation companies to provide turnkey solutions for homeowners, including financing and maintenance.
 - **Target Beneficiaries:** Low-income homeowners, generally in urban and suburban areas.
 - **Partners:** Local solar PV installers, financial institutions, and community-based organizations.

Major Partners

The AKSFA initiative will leverage the expertise and resources of several major partners in Alaska:

- **Alaska Housing Finance Corporation (AHFC):** AHFC is our coalition partner in this application, and they will, at the least, administer the residential/multifamily solar component of the program.
- **Alaska Center for Energy and Power (ACEP):** AEA and ACEP signed an MOA indicating ACEP will provide techno-economic analysis and support for project development and implementation.
- **Alaska Municipal League (AML):** AEA and AML signed an MOA indicating AML will help to engage local governments and communities in planning and deployment efforts.
- **Alaska Works Partnership (AWP):** AWP will lead workforce development and training programs to ensure a skilled local workforce for solar PV installations, particularly with those installations connected to the main grid.
- **Tanana Chiefs Conference (TCC):** TCC is receiving EPA SFA funds to implement and administer their own, independent Solar for All program, the efforts of which the project team will track and collaborate with to avoid duplication and ensure equity.
- **Alaska Native Tribal Health Consortium (ANTHC):** Under TCC's SFA grant, ANTHC will administer the community solar component of TCC's Solar for All program, which the project team will track and collaborate with.
- **National Renewable Energy Laboratory, Fairbanks Campus (NREL-F):** NREL-F is connected to the broader technical assistance effort for Solar for All, and the organization represents a wealth of experience in renewable energy and energy efficiency developments in Alaska.

Key Collaborations

- **Alaska Native Corporations and Tribal Organizations:** Regional Alaska Native Corporations, and their more geographically focused counterparts, Village Native Corporations, created under the Alaska Native Claims Settlement Act of 1971, and federally-recognized tribal organizations, will act on behalf of their shareholders and tribal members to communicate on and support the development of community solar PV projects in rural areas.
- **Local Governments and other Tribal Entities:** Communication with local communities, community leaders, and representative regional entities, will ensure that application of the AKSFA program aligns with community goals and needs.
- **Alaska Village Electric Cooperative (AVEC) and other rural electric utilities:** AVEC and smaller rural electric utilities have an indispensable voice in deploying community solar PV projects in rural areas, providing technical expertise and local knowledge, as well as the final practical authority on the interconnection of any system.
- **Urban Municipalities and Electric Utilities:** Communication with city governments in urban Alaska, community leaders, and representative regional entities will ensure that application of the AKSFA program aligns with the goals and needs of their respective communities. Urban Alaska's electric utilities will be consulted for their expertise on deployment and interconnection of solar PV projects in urban areas, providing technical expertise and local knowledge, as well as the final practical authority on the connection of any system.

Program Goals and Objectives

The primary goals of the AKSFA initiative are:

- To reduce Greenhouse Gas Emissions: By installing 8.3 MW rated power of solar PV, the AKSFA program aims to reduce Carbon-dioxide (CO₂) emissions by approximately 6500 tons annually.
- To provide Equitable Access to Renewable Energy: Ensuring that 3,500 low-income and underserved households have access to affordable, clean energy.
- To develop the Local Workforce: Create high-quality jobs in the solar-electric power industry through targeted workforce development and training programs.
- To streamline the Solar PV Market: Mobilizing capital and establishing sustainable financial mechanisms to support future growth of the solar PV market in Alaska.

Implementation Strategy

The implementation of the AKSFA initiative will be guided by a Project Management Plan (PMP) for each community solar PV project, outlining specific objectives, risks, and reporting requirements. The program will also incorporate robust consumer protection measures, quality control inspections, and ongoing community engagement to ensure the success and sustainability of the initiative.

The Alaska Energy Authority is committed to ensuring fiscal stewardship, compliance with grant terms, and effective project management to achieve the goals of the Solar for All program. This includes robust internal controls, comprehensive consumer protection measures, and active oversight and monitoring to ensure successful program implementation.

Sub-awardee AHFC is presently in the process of creating an online portal to process general applications. An Alaskan resident will input their estimated income and location and will be shown a list of programs they might qualify for, from Weatherization to Home Energy Rebates and Solar for All. During the application process, their income and location to confirm LIDAC status will be verified. AHFC is also administering the forthcoming DOE Home Energy Rebates, and the application portal will serve as the entry point for both programs, so applicants will have a single interface with the rebates and benefits they qualify for, as well as access educational resources on what is the optimal path through the different programs. AHFC also administers Alaska's Weatherization Assistance Program (WAP) and will work with the state's weatherization providers to identify households that would be good candidates for a rooftop solar PV installation. A weatherization provider would recommend a household for the program and their approval for the WAP program would function as an automatic pre-qualifier for entry into the Solar for All Program.

Section 1: Project Description

1.1 Overview

The Alaska Solar for All Program aims to deploy solar PV infrastructure across Alaska. The program will reduce greenhouse gas emissions while providing low-income and disadvantaged or underserved communities with access to renewable energy. This program will stimulate the solar-electric power industry in Alaska by mobilizing finance and private capital for additional deployment of clean energy projects.

1.2 Project Outputs & Outcomes

The following are the anticipated outputs and outcomes from this grant, aligning with the three Greenhouse Gas Reduction Fund (GGRF) program objectives: Climate and Air Pollution Benefits, Equity and Community Benefits, and Market Transformation Benefits.

All projected outcomes and outputs in this workplan are based on the assumption of new power generation installation only. In the event that the replacement of existing generation somehow becomes necessary, specific outcomes and outputs will be projected during the planning year, with a clear differentiation between contributions of new, versus existing, generation.

1.2.1 Outputs:

- **Number of Households Served:**
 - **Residential/Multifamily Solar:** 1500 households
 - **Community Solar:** 2000 households
 - **Total:** 3500 households
- **New Capacity:**
 - **Generation through Residential/Multifamily Solar:** 6 MW
 - **Generation through Community Solar:** 2.3 MW
 - **Total Generation:** 8.3 MW
 - **Percent cost of energy storage systems for Community Solar:** 20-35%
- **Estimated GHG Emissions Reduced and Avoided:**
 - **CO₂ Reduction:** 6500 tons annually
- **Estimated (community solar) “financial or equivalent non-financial benefit,” as savings per community household:** \$381 annually*
- **Estimated (residential solar) direct savings per Household:** \$640 annually
- **Workforce Development:**
 - **Jobs Created:** 125 high-quality jobs
 - **Training program enrollees:** 300
 - **Training program completions:** 250
- **Calculations and Assumptions for Output Values:**
 - **Estimated GHG Emissions Reduced and Avoided:** 6500 tons annually

- This output value was reached using the EPA’s Greenhouse Gas Equivalencies Calculator, assuming solar-derived electricity generation of an average of 1,000 kWh per rated kW of installed solar PV per year, with CO₂ emissions reductions based on local grid emission factors. We will use community-specific data to calculate the precise and localized benefits during and after the selection process.
- **Estimated Household Savings:**
 - Calculated using average household energy consumption and projected reduction in utility bills from solar PV installations
- **Workforce Development:**
 - Based on the scope and scale of project deployments, estimating job creation across installation, operations, and maintenance.

1.2.2 Outcomes:

- **Climate and Air Pollution Benefits:**
 - Significant reduction in greenhouse gas emissions through the deployment of solar PV systems.
 - Improved public health benefits resulting from reduced reliance on fossil fuels.
- **Equity and Community Benefits:**
 - Increased access to affordable and clean energy for low-income and underserved communities.
 - Enhanced community resilience through the deployment of solar PV and storage solutions, ensuring power during grid outages.
 - Strengthened community ownership and control over energy resources, promoting equity and economic development.
- **Market Transformation Benefits:**
 - Stimulation of the local solar-electric power industry and attraction of private capital for further renewable energy projects.
 - Development of a skilled local workforce in the solar-electric power industry, creating sustainable employment opportunities.
 - Demonstration of scalable models for solar PV deployment in remote and rural areas, promoting wider adoption of renewable energy technologies.
- **Workplace Transformation & Wealth Building**
 - Workforce development programs will be linked to community solar projects that are funded and result in high-quality job placement.
 - Increase the number of skilled workers capable of performing community solar PV microgrid and residential solar PV installation and maintenance in Alaska’s low-income and underserved communities.
 - Enhancing job retention and advancement in the solar sector within low-income and underserved communities.
 - Through local hiring preference, cash will be inserted directly into local communities. High quality local jobs related to solar PV system maintenance and installation will be created, and regional microeconomies will be positively impacted, driving further job growth through consumption.

1.3 Linkage to EPA's Strategic Goals:

This award supports the following goals and objectives of the Fiscal Year (FY) 2022-2026 EPA Strategic Plan:

The ASKFA program directly aligns with and contributes to the EPA's strategic goals. By focusing on improving energy access in rural Alaska as well as enabling adoption for low income, disadvantaged, or underserved households along the Railbelt, the program will support the EPA's goal of advancing environmental justice and civil rights. This is particularly critical in rural Alaska, where communities primarily composed of indigenous populations and economically disadvantaged residents, rely primarily on costly and environmentally intensive diesel generation. The transition towards solar power not only reduces these communities' exposure to polluting emissions but also mitigates the health and environmental risks associated with diesel fuel transportation and storage, directly addressing disproportionate environmental burdens.

The program's contribution to reducing greenhouse gas emissions by supplementing existing generation with solar-electric power aligns with the EPA's goal to tackle the climate crisis. By lowering carbon emissions and promoting the use of clean energy, the program advances state, national and global climate goals, while also improving energy resilience in regions vulnerable to supply chain disruptions. Furthermore, this program's emphasis on islanded community-scale solar PV installations fosters clean energy access, which is another EPA priority. The shift to renewable energy sources ensures a more reliable and sustainable energy supply, which is critical for the well-being of remote communities and those in more urban areas alike.

Additionally, the program's inclusive structure will engage stakeholders across local governments, tribal entities, utilities, and educators; this embodies the EPA's commitment to collaborative governance and scientific research. These collaborations will not only ensure the program's success through integration of technical assistance and local expertise, but will also create jobs and revitalize local economies, echoing the EPA's goal of ensuring sustainable community development. By driving local and regional employment in the clean energy sector and fostering technical skills, the program contributes to the broader EPA objective of sustainable and equitable economic growth.

In summary, the AKSFA initiative represents a comprehensive approach that nests smoothly within the EPA's strategic goals, addressing climate change, advancing environmental justice, promoting clean energy, and supporting economic revitalization through targeted, community-driven implementations.

Section 2: Project Design Plan

2.1 Meaningful Benefits Plan

2.1.1 Household Benefit:

Critical to the Meaningful Benefits Plan of the EPA's Solar for All program is to "ensure households receive a financial or equivalent non-financial benefit of 20% or greater of the average household's annual electricity expenditure" to all participant households and communities. The AEA's program, AKSFA, will follow this guidance closely. Evaluation of these benefits will be impacted heavily by the specific type of installation under consideration: grid-connected or grid-connectable residential/multifamily solar or resident-serving community solar.

Grid-Connected/Grid-Connectable Residential/Multifamily Solar PV Installations

For residential/multifamily installations permanently connected to the Railbelt electrical grid, benefits will be calculated primarily through the direct reduction in electricity costs for homeowners. Provision of utility bills will be made a prerequisite for applying to the residential solar program. It is possible that non-Railbelt or controllably connected microgrid residential/multifamily installation benefits will be calculated differently due to the Power Cost Equalization program (PCE). The exact calculation methodology will be developed during the planning year. Specific items that the project team will need to identify include, but are not limited to:

- data required to demonstrate savings appropriately,
- method for data acquisition and storage,
- time period over which the savings will be evaluated (specifically, how to mitigate the increased seasonality of solar power generation in Alaska),
- engagement with utilities to develop a reporting portal,
- defining what constitutes a non-financial benefit for residential, multifamily, or controllably grid-tied microgrid installations, and,
- how to demonstrate savings for non-metered individual homes.

Rural Community-Scale Solar PV Installations

In rural Alaskan communities the calculation of savings and benefits will take a different form, which we will also be developing the specifics of during our planning year.

The Power Cost Equalization (PCE) program, administered by AEA with oversight from the Regulatory Commission of Alaska (RCA), reduces residential/multifamily electric rates in rural areas. As part of the administration of the PCE program, AEA receives monthly reporting from each utility, giving AEA significant access to aggregated community scale energy data. The intent is to use this information to evaluate energy savings and specific data about reductions in greenhouse gas emissions. In combination with information to be gathered from each independent power producer, this aggregated data will allow the project team to provide an accurate average of the "financial or equivalent non-financial" benefit per resident in the community. Audits to be conducted periodically will allow for confirmation of appropriate distribution of the funds, and the project team will develop a reporting portal to ensure that any intended

benefit recipient who is having trouble or concern can reach our program office directly. Specifics of the application of this methodology will be evaluated during the planning year.

Additional components of this strategy to be further developed during the planning year include:

- Establishing baseline consumption evaluation (based on previous PCE data)
- Establishing timeframe for analysis (annual, to avoid previously discussed seasonality impacts)
- Developing a plan for calculating and working towards the household “financial or equivalent non-financial benefit of 20% or greater,” inclusive of any costs for participating in the program.
- Implementing audit and reporting mechanisms to ensure “financial or equivalent non-financial benefits” are realized and reported to EPA.
- Ensuring that every installed system is individually metered, and that all data is reported to AEA, with data to be collated by AEA in a public portal, in order measure the actual benefit to the people of the State of Alaska as a whole.

2.1.2 Equitable Access to Solar Power:

AEA, along with our Major Partners and collaborators, will leverage their longstanding access and work with disadvantaged or underserved communities spanning rural and urban areas to maximize program equity. AEA will lean on experience developed during the administration of the Renewable Energy Fund (REF) program, including relationships with statewide networks to provide program support and access. Outreach for the community portion of the project will be conducted through a combination of pathways, including through a new solar PV working group, through utilization of existing engagement pathways, through interfacing with statewide nonprofits like the AML and tribal entities (e.g. TCC and ANTHC), and through the development of new engagement pathways by direct outreach to community leaders, community utilities, and regional organizations.

AEA’s region of focus is entirely on disadvantaged or underserved communities, in recognition that support for these communities is both a requirement and central tenet of the SFA program. AHFC will utilize existing engagement pathways developed through their administration of the weatherization assistance program (WAP) and home energy rebate (HER) programs. AHFC, during the planning year, will identify opportunities to maximize programmatic impact by leveraging complementary opportunities for cross qualified low-income participants. Integration with existing customer acquisition methodology will be part of their enrollment strategy planning, developed during the planning period. Leveraging the consumer trust AHFC has built through their pre-existing programs will allow for rapid implementation of the AKSFA program.

Qualification as Low-Income and Disadvantaged Communities (LIDAC) and residents under the definition put forth in the EPA Notice of Funding Opportunity (NOFO) will be different for AKSFA’s community solar and residential/multifamily solar sub-applicant pathways. LIDAC will be applied to the “Community Solar” program as defined by the Climate & Economic Justice Screening Tool (CEJST) mapping tool, with secondary reference to EPA’s EJScreen.

To ultimately select for development among LIDAC communities, the project team will use some combination of “most disadvantaged” and “most viable location/conditions” to rank potential projects, and this rubric will be created during our planning year, with full engagement of stakeholders. A potential “most disadvantaged pre-qualification” pathway has already been partially defined by AKFSA’s sister Solar for All program, TCC’s Alaska Tribal Solar for All.

Residential/multifamily program applicants will need to be selected under some combination of the LIDAC qualifiers put forth in the NOFO. The primary qualification cut-off will allow only households at or below 80% of AMI (Area Median Income), which the NOFO labeled as (c) *Geographically Dispersed Low-Income Households*. Secondary qualifications for residential/multifamily solar projects will be those meeting specification under the NOFO as (a) *CJEST screened*, and (d) *Properties Providing Affordable Housing*. “Categorical Eligibility” may also be used as a criterion, with exact details to be established during the planning year. AHFC will explore considerations for housing affordability during the planning year.

Ultimately, by any metric, by any program definition, the communities in Alaska that are the most underprivileged, and where the electricity cost burden is the highest, are the very remote communities which rely on isolated microgrids that will require major solar, storage and grid infrastructure investments. The cost of solar power implementation is also much higher in rural Alaska than on the Railbelt, so there is a somewhat delicate balance between the two avenues of investment, and the project team will optimize between them to the best of our abilities. Selecting between disadvantaged or underserved communities will require significant research and outreach. Both programs will work with relevant utilities, municipalities, landowners, and regulatory agencies to ensure smooth interconnection processes. Annual audits of the effects of installed systems both on residential and community scale will be undertaken.

2.1.3 Resilience Benefits:

The importance of reliable energy delivery in rural Alaska cannot be overstated. Without power, major infrastructure, including water and sewer systems, can freeze quickly in the winter months, and if power isn’t quickly restored can impact availability of those elements for the remainder of the winter. High winter loads must be practically mitigated first through energy efficiency and conservation measures, and the integration of renewable energy systems may in some cases require grid upgrades. With a huge number of communities currently relying on outdated infrastructure long past its useful life, community owned battery backup systems, supported by solar power, will greatly reduce the frequency and severity of outages. All of the islanded microgrids being considered for the purposes of the Community Solar program are, in their entirety, critical infrastructure, and all said microgrids will categorically require, for the addition of solar power, the addition of battery backup.

For both the residential/multifamily solar program and the community solar program, grid resilience metrics will be determined according to the following:

1. System Average Interruption Frequency Index [SAIFI] and System Average Interruption Duration Index (SAIDI) or equivalent analyses.
2. Assessment of affordable access to energy in the event of a grid outage.
3. An assessment of affordable access to energy within the community in the event of a supply chain disruption.

Specifically for the community solar program, at least two more grid resilience metrics must be considered due to the challenges of isolated microgrid operation:

1. Does the microgrid have adequate energy storage to support maximum winter load?
2. Is adequate microgrid infrastructure in place to justify the addition of solar power (are “enabling upgrades” needed), such as:
 - (a) energy efficiency or load control measures that should reasonably take place *before* the introduction of solar power,

- (b) power control equipment, switchgear, etc., not directly associated with renewable energy generation that needs replaced *before* the introduction of solar power, and
- (c) existing primary generation, e.g. diesel generators, that require replacement or significant upgrades replaced *before* the introduction of solar power,
- 1. with the exact extent to which these upgrades will be funded will be determined during the planning year.

Non-grid economic resilience measures for the community solar program will be assessed according to:

- 1. The local cost of power, both in terms of the PCE adjusted rate and the non-PCE adjusted rate.
- 2. The ability of individuals in the community to pay for power at the utility-provided rate.
- 3. The willingness of the community, as evidenced by both past action and future intent to implement energy saving measures and renewable energy production measures to eliminate or offset the cost of fossil fuel usage.

Furthermore, localized listening sessions will be conducted to learn more about how individuals within prospective Community Solar program communities view resilience during the planning year.

The size of residential solar PV systems has been chosen, at a first estimate, at 4 kW, based on our back-of-the-envelope assessment of the average LMI Alaskan homeowner's solar-power-accessible roof area, which should represent a good first-round system sizing recommendation in terms of both cost and resilience. This choice will be assessed, and altered, as needed in much further detail during the planning year.

To date, only a small portion of the work required to identify the best size, number, location and resulting cost for the community solar installations has been completed. These details will be further defined during the planning year.

It is important to note that the systems ultimately constructed – and the resilience they provide – will depend on multiple factors, including those mentioned above. We formed our estimates for impact targets based on data from community solar PV installations supported under AEA's REF program amongst others. These data points will be further refined to accurately represent current market conditions (e.g., system element cost, shipping), and, in combination with input from our technical advisory panel, will directly inform the sizing and number of systems to install, which will in turn drive overall resilience outputs.

Siting support is an additional component of system design to be evaluated in the context of resilience. Currently existing best practices to mitigate climate hazards to installations and to mitigate environmental impact for a given project sizing will be followed, and Alaska-specific considerations will be identified. For each selected project, AEA will directly engage with the local operating utility to ensure siting and interconnection concerns are addressed early in the design process.

The project team will identify opportunities to effectively deploy energy efficiency funding, whether through the enabling upgrade component of the SFA program, or by leveraging outside energy efficiency funding opportunities, to maximize impact of each project and stabilize loads on what are often fragile grids, resulting in overall resilience improvements.

Based on previously installed community solar photovoltaic systems with battery system back-up, AEA anticipates a cost for battery systems at about 20-35% of financial assistance. A more precise percentage cannot be fielded at this time, as these will be pass-through grants, and the individual communities with their individual load profiles have not yet been selected, and conditions vary widely throughout rural

Alaska. The relevance of this can be seen in the fact that one practicable strategy for grid resilience is to size battery banks based on 1-2 hours of peak winter load rather than on the size of the solar PV system.

It is also not fully practicable to base battery system cost percentage estimates on prior community systems, as the installers, operators, and end-users of nearly all similar systems have found that both additional PV oversizing was advisable (a bare minimum rated power should be 250% of average load, whereas many present systems have much less, and much more is conceivably desirable), and that larger battery storage and battery-inverter systems were found to be needed for as an effective grid resilience measure during the darkest and coldest winter months.

Because future project sites are unknown and widely varied, future locations of the energy storage assets are unknown. For systems installed within the territory of the Alaska Village Electric Cooperative, one of the main electric utilities, and one which covers a large swath of the energy regions which will be served under the AKSFA program, the battery-inverter main grid tie-in location must be inside the existing powerhouse; the battery-inverter and batteries are likely to be housed in a location closer to the PV arrays. Similar guidelines are likely to be applied for most, if not all, installed solar PV systems under AKSFA.

2.1.4 Community Ownership:

While the specifics of ownership methodology will be developed during the planning period, the rural Alaskan “independent power producer” (IPP) model, which has been successfully implemented in several islanded communities across Alaska can be used. One of the model’s critical aspects is that the solar PV system is directly community supporting or community-owned, and that is fully aligned with the goals of the EPA SFA program. The power produced will be sold to the utility, and the revenue generated will be dispersed to the community with a percentage held by the IPP itself for operations and maintenance expenses.

The AKSFA program will score and evaluate proposals for community-based solar, and one of the criteria will be the use of local or regional hire labor. Hiring local or regional labor or regional to build a community solar PV system encourages pride and ownership of the asset and develops a local or regional workforce to have the skills to perform routine operations and maintenance (O&M) tasks. This is particularly important in Rural Alaska, as flying a technician into a community can be a prohibitively expensive and lengthy process.

The project team understands that all funds, including for operations and maintenance, for both residential/multifamily and community solar initiatives, must be expended during the five years of the granting period. Neither Residential/multifamily Solar O&M nor Community Solar O&M thereafter will be supported by funds from AKSFA. Specifically, any operations and maintenance action or fund for community solar must be supported after the 5th project year through the anticipated 20-year system life by the gross income of the community, community-oriented non-profit, or independent power producer which will serve as the owner of the solar PV system (or from program income, or separate state funding, or federal funds external to SFA), not through any residual AKSFA funding. The portion of funds directed at rural, community solar PV installations will be structured around an independent power producer model, which has been demonstrated in situ. At least 50% of benefits from community solar are delivered to residential electricity consumers. Plans will be developed for the operation and maintenance of community-owned assets.

For the Residential/Multifamily Solar program, community ownership will be achieved as follows:

- Facilitating ownership models allowing low-income communities to own assets. This will be done through the following pathways:
 - Community Solarize campaigns.

- New or existing non-profits leveraging investment tax credits under the Inflation Reduction Act.
- Ensuring that at least 50% of benefits from the program are delivered to residential electricity consumers.

In order to mitigate risk to program applicants to AHFC's Residential/Multifamily Solar program, a variety of steps will be taken. First, all contractors who install solar PV systems under AHFC's program will need to sign an agreement with AHFC, abide by specified operations and maintenance best practices, and provide a warranty period to cover repair/replacement of their installations. Additionally, AHFC will establish a process for complaints from program applicants, establish a process to vet and address those complaints which provides installers a chance to rectify each legitimate issue, and formulate a process by which solar installers can be removed from the program after a certain number of verified deficiencies. In the further interest of failure identification, AHFC is developing a monitoring program to identify problems based on an adaption of AHFC's in-house Building Monitoring System (web-based software) to allow remote monitoring of rooftop solar installations (with homeowner permission).

Even after warranties and fault identification, as homeowners will own their PV panels under the Residential/Multifamily program and fluctuations in the solar PV market are likely, there remains a degree of risk inherent to the program. Therefore, AHFC will dedicate a small amount of funding during the granting period for maintenance of installations by installers that either were removed from the program or are no longer be operating. AHFC personnel will work with their in-house Risk Department and utilize their experience providing a variety of energy efficiency programs and rebates to further identify and mitigate specific risks to applicants.

2.1.5 Workforce Development:

AEA will provide pathways for high-quality, middle-class jobs in the solar-electric power industry along with connected fields. The project team will continue existing efforts and consider new ways to invest in training, education and skill development of workers to advance their careers and improve social mobility.

The AKSFA program will increase demand for manual labor and laborers skilled in installing and maintaining Solar PV systems and solar PV microgrids in Alaska. Through the development and fostering of new work partnerships and the direct support of existing work partnerships and training programs, in tandem with existing local hire preferences, we will develop training programs to be provided to Alaskans, by Alaskans.

AML will maintain a local workforce availability and hire tracking system throughout the life of the project, enabling the achievement of local hire goals and cross-promoting hire between projects that might occur within a region.

The project team will collaborate during the planning period with the University of Alaska (UA), Alaska Vocational Technical Center (AVTEC), and Alaska Works Partnership (AWP) to identify ways in which training, apprenticeships, and local hiring can benefit from solar integration into microgrids. In addition, the project will reference the Alaska Workforce Investment Board's strategies for workforce development, found in its Combined Plan for Workforce Innovation and Opportunity. AEA and AML will identify opportunities for collaboration with UA on solar-specific or solar-adjacent courses and certifications that will advance workforce development goals.

Intermediary training providers like AWP will be utilized, and apprenticeships facilitated by Alaska's labor organizations and the UA, to deliver medium and high wage occupation opportunities to underserved communities. Unemployed and underemployed residents will work through an intake and navigation process to ensure appropriate engagement in tracks and guidance, including support services.

2.1.6 Collaboration and the Avoidance of Duplication:

As stated above, TCC is administering their own EPA Solar for All Program, called Alaska Tribal Solar for All. It will be critical both for efficient operation and for reporting purposes that the project team work closely with TCC to avoid duplication, ensure equity, maximize program impact, and ensure accurate metrics are delivered to the EPA. As ANTHC is the sub-awardee to TCC's SFA grant and in charge of the Alaska Tribal Community Solar component, and AEA is the direct caretaker of AKSFA's Community Solar sub-program, close and direct collaboration with ANTHC will also be required. The community sub-grantees of the Tribal Solar program will all be federally recognized tribes, whereas the AKSFA Community Solar will apply more broadly to underserved rural communities. The latter technicality is, however, insufficient to distinguish the "granting territories" of the two programs, since there exists in many cases extreme overlap between the individuals who constitute a tribal village council and those who constitute the corresponding incorporated municipal government in rural Alaska, and the residents served are also often much the same.

During the planning year, tasks approached by the Community Solar program will be broken down into "collaborative tasks" and "non-collaborative tasks".

Examples of non-collaborative tasks will include individual village-level workforce development and solar PV installations in different communities. There will be no dual-program investments into solar PV installations nor related investments into a single community, and TCC and ANTHC have agreed to collaborate closely with the project team to ensure that no direct community investments occur to the same community from both programs. For non-collaborative tasks in general, even when incidental collaboration does exist through the general programs, output metrics will be reported only by a single program, that is, the one primarily responsible for the task's completion and for its funding. Examples of possible collaborative tasks include statewide or regional workforce development, technical advisory and best practices, and stakeholder engagement. Where tasks are labeled collaborative, achievement metrics will either be reported with a 50-50 split where both programs have agreed to contribute equally, else be based on the percentage of budgeting and work-hours delivered from each of the two programs, and be expressed as a percentage of the total results achieved.

Outreach for the Community Solar portion of the AKSFA will be conducted through a combination of pathways, including through a new solar PV working group, through existing engagement pathways, through AML, and through tribal entities, which TCC and ANTHC both represent. New engagement pathways will also be developed by direct outreach to community leaders, community utilities, and regional organizations.

For establishment of a Technical Advisory Panel (TAP), several groups will be involved, including ACEP, NREL, the Cold Climate Housing Research Center, TCC and ANTHC.

AHFC is administering the residential solar component of both AKSFA and the Tribal Solar programs, so duplication of that sub-program should be a non-issue, and accurate reporting should be relatively straightforward. Some overlap may still take place in terms of workforce development and Solarize

programs, but the outputs from each program should be very simple to break down in terms of financial contributions from the two programs.

2.2 Financial Assistance Strategy

The AKSFA program aims to bring solar power to low-income and disadvantaged or underserved communities, with 82.9% of funds dedicated to financial assistance. AKSFA will deliver solar PV projects primarily through subgrants, targeting 3,500 households. The community solar program, primarily administered through AEA, will focus on rural, underserved communities, while AHFC's residential/multifamily solar program will support low-income households statewide with a focus on the Railbelt. For both residential and community-scale projects, the program's intent is to provide complete coverage of costs, minimizing barriers to adoption for all participants. Since AKSFA funding cannot cover operations and maintenance beyond the five granting years of the program, corresponding plans will be made for the operation and maintenance of systems throughout the system life of 20 years.

AEA will be responsible for implementing approximately 50% of the financial assistance funds for the installation of residential-serving community solar PV projects in underserved rural communities statewide, with a focus on islanded microgrids. All community scale installations will be sized below the 5 MW AC maximum allowed under the SFA program. In all anticipated sites, the primary customers of the relevant utilities are residential in nature, and due to complete islanding of the grids in question, all power generated by these rural community solar PV installations will be consumed in a single utility territory. Storage solutions will be integrated to enhance solar PV project success where appropriate, and solely in conjunction with new solar installation.

Financial tools will consist of direct subgrants for all Community Solar projects. The exact counterparties for these agreements will be determined during the applicant solicitation process, but based on experience with the REF program they may take the form of a non-profit IPP owned by the local tribal entity, with a commitment to disburse financial benefits to each local resident. Further additions to the capital stack such as tax credits will be explored during the planning year to further deepen the impact of the SFA funding. The project team will ensure that installations meet requirements to receive Investment Tax Credits (ITCs) and Production Tax Credits (PTCs); for example, an adequate ratio of apprentices to journeyman electricians will be required on installation jobsites.

AHFC will direct the remaining financial assistance funds to the residential/multifamily solar program, aimed at supporting low-income households, with a primary focus on those residing along the Railbelt. Funds disbursed by the AKSFA program for residential/multifamily solar PV installations will be provided directly to the appointed solar PV installer for each installation, with all installers first being competitively qualified into the AKFSA program.

Financial tools will include direct subgrants to communities for Community Solar, and IPPs or non-profits directly representing those communities. Alternative financing mechanisms such as incentive payments and subsidies will be explored during the planning year. Opportunities to leverage additional funding from sources such as private equity, loan programs, and tax credits will also be evaluated. Where available these or other sources of external funding will be utilized to cover enabling upgrades or efficiency improvements to maximize generation assets and impact of SFA funds. The project team will be exploring at least one loan program, and direct subsidization of both energy storage and enabling upgrades for Community Solar.

A potential AKSFA-internal loan program, as approved in the (2024) State of Alaska 33rd Legislative Session, under the committee substitute for House Bill Number 273(L&C) amended in the Senate, is the "Green Bank" for the State of Alaska. AHFC is currently in the process of standing up and incorporating

the Green Bank, which will be called the Alaska Sustainable Energy Corporation (ASEC). ASEC will be a subsidiary of AHFC, sharing the same Board, but with independence sufficient to create its own programs.

AKSFA is proposing to allocate \$2 million in funds for ASEC to create a loan program to provide the benefits of solar electric power to low-to-moderate income Alaskans who may not qualify for a subsidized PV system installation, but who would still struggle to access the benefits if they had to pay market rate upfront or take out a market rate loan to pay for an installation. AHFC will be presenting the articles of incorporation to their Board on October 30th, 2024 with a future director of ASEC ready to be onboarded.

AFHC will present ASEC leadership with the *potential* funding amount and program guidelines to follow and work with ASEC staff to create a program that would meet EPA's guidelines from December 2024 through March 2025, in order to present the plan to the EPA and work through any negotiations or program details prior to launching July 2025.

If the Alaska Sustainable Energy Corporation is, for whatever reason, not incorporated by July 2025, the project team cannot commit to details of the program. If ASEC is fully unable to move forward with the AKSFA-funded loan program for any reason, AKSFA will re-appropriate the money into the rooftop Solar for All fund to provide for more direct subsidies for low-income household solar PV installations, or reappropriate the money to the AKSFA Community Solar program, or some combination thereof.

Storage solutions will be integrated to enhance solar PV project success where appropriate, and solely in conjunction with new solar installation, especially for rural community scale installations where they are functionally required to effectively use solar power. Collaboration with federal and state partners will optimize the impact, leveraging loan pathways as available, for example through the Powering Affordable Clean Energy (PACE) Loan Program and ASEC. Projects requiring enabling upgrades will be evaluated on a case-by-case basis, with the intent to leverage alternate funding sources for that work. No more than 20% of financial assistance funds will be used for enabling upgrades across the full AKSFA program.

No enabling upgrades are planned for the Residential/Multifamily program, although storage solutions may be implemented in rare cases, where necessary to support household medical devices or isolatable microgrids. Storage solutions *will* be integrated to solar PV projects in fully isolated rural community microgrids in the Community Solar program, where they will be functionally required.

Additionally, for applicants to the Community Solar program, microgrid infrastructure in place to justify the addition of solar power (which may in some cases count as "enabling upgrades") must be considered such as:

- (a) energy efficiency or load control measures that should reasonably take place before the introduction of solar power,
- (b) microgrid power control equipment, switchgear, etc., not directly associated with renewable energy generation that needs replaced before the introduction of solar power.
- (c) existing primary generation, e.g. diesel generators, that require replacement or expensive upgrades replaced before the introduction of solar power.

In the case of (a), the project team will first try to ensure that funding from other sources has been secured (for example, through community-wide applications of the Weatherization Assistance program and the Home Energy Rebate program), but will remain flexible enough to accommodate some measures through AKSFA funding. In the case of (b), very limited assistance may be possible via AKSFA, while staying under the maximum 20% of financial assistance for enabling upgrades threshold. In the case of (c), financial assistance will likely not be viable through AKSFA funding, due to the sheer expense. No enabling upgrades will be funded without a solar PV installation in conjunction with those upgrades also

being agreed to be funded through AKSFA. The exact extent to which these upgrades will be funded will be determined during the planning year.

AHFC will also utilize existing pathways through its other administered programs such as the Weatherization Assistance Program and the Home Energy Rebate program to the full benefits of those programs reach low-income residential solar project applicants. Weatherization providers will be encouraged to recommend households that have been through the process that would be good candidates for a Solar Installation. These households would be considered pre-qualified under the Geographically dispersed low-income and their having received the energy efficiency upgrades allowed under WAP, they should be positioned to receive maximum benefit from a solar PV installation. AHFC is creating a single point of entry for both Solar for All and the DOE Home Energy Rebate programs to ease the application process for both programs and allow maximum education and outreach opportunities. The program will complement ongoing efforts like the Renewable Energy Fund and the Carbon Reduction Strategy, which explore solar PV projects in public spaces.

- **Funding Allocation:**
 - Use 82.9% of program funds for financial assistance.
 - Split funds between rooftop residential/multifamily solar and community solar PV projects.
 - Ensure a significant portion is directed towards low-income and disadvantaged/underserved households.
- **Financial Products:**
 - Identify and refine financial assistance mechanisms during the planning period.
 - Leverage private equity, loan programs, incentive payments, and rebates.
 - Develop revolving loan funds and other sustainable financial products.
- **Customer Acquisition:**
 - Implement robust income verification and minimize household burden.
 - Utilize diverse engagement strategies for different community types.
 - Ensure outreach materials are culturally appropriate and accessible.
 - Equitable Access and Meaningful Involvement Plan
- **Participatory Governance:**
 - Involve low-income communities in program design and operations.
 - Engage with community-based organizations for feedback and decision-making.
 - Establish formal structures for community involvement, such as advisory committees.

2.3 Project Deployment Technical Assistance Strategy

2.3.1 Technical Assistance and Community Benefits

Alaska's community solar program will provide extensive technical assistance to project sponsors, including quarterly cohort sessions, project development support, and financial leveraging strategies. Partners anticipate that there will be opportunities for workforce or community strategies to be established as a direct result of the project.

The project team will work through a facilitated community stakeholder process to identify ways in which workforce goals will be met and technical assistance will be deployed. Goals will include technical best

practices, siting, local hire, family-supporting jobs (wage parity), health insurance, diverse workforce, diverse workforce participation, and resources for continuing education and certification that result in a highly skilled workforce. Contractor solicitation will reference these goals as part of criteria for an award.

A wide range of modelling and technical assistance tools will be employed to assist solar microgrid development and residential solar installations, at the advice of the technical advisory panel, including but not limited to: SolarApp, SolSmart, PVWatts, and Homer and Python modelling.

The project team will work with community leaders to identify ways in which the project benefits can best accrue to the community, including through siting and permitting best practices. AML's experience working to strengthen local governments will be useful in engaging communities and solar developers in technical assistance that addresses land use, building codes, and inspection and quality control. This will include planning for environmental justice, carbon reduction, workforce development, shared procurement, local hire, and asset management, including maintenance and operations planning and technical assistance.

AHFC will create a solar PV market stakeholder group to address interconnection challenges and develop a residential/multifamily solar PV project pipeline.

2.3.2 Workforce Development and Training

AEA, in partnership with AVTEC, will update its Power Plant Operator training to include solar PV systems, and enhance the Circuit Rider Program to support community and residential/multifamily solar. AEA will work with local and regional stakeholders to develop local and regional installation and maintenance training and workforce development, and for solar microgrids.

Alaska's Solar for All program will focus on the applicability of renewable energy careers and related professions to the planned solar installations specifically, but also look to leverage the interconnections across the clean energy industry. This recognizes the interoperability necessary, especially for community solar, and the re-skilling that may occur over the course of the program. The outcomes of the workforce development and training program will benefit low-income and disadvantaged/underserved communities where solar is being deployed.

This project envisions a workforce ladder, utilizing intermediary training providers like AWP, apprenticeships facilitated by Alaska's labor organizations, and the university to deliver medium and high wage occupation opportunities to underserved communities. Unemployed and underemployed residents will work through an intake and navigation process to ensure appropriate engagement in tracks and guidance, including support services. All partners will be involved in the ladder through a collaborative process that includes community-driven priorities

University Track - AML will work during the first year's planning process to work with the University of Alaska system, which has the potential to help meet workforce needs for solar energy by expanding key certificate programs and increasing industry access to trained workers. UA may expand the number of relevant certificates offered and promote the engineering degree programs that serve the solar sector. AML will engage with UA during the program planning year to assess and identify current occupational needs, organize career fairs, and assess the impacts of existing workforce training. AML can communicate to UA industry needs and opportunities in the engineering and technology sectors and help connect industry partners with students, faculty, and staff. UA may consider supporting job placement, internships, job shadow opportunities for students, career fairs, mentorship opportunities,

interviewing/resume/skills workshops, and industry interaction with student clubs. AML will encourage UA to assess current UA efforts and partnerships to evaluate the extent that current training programs are effectively meeting the needs of industry and make recommendations to strategically invest program funding to increase capacity, graduates, and the number of graduates becoming employed in these targeted sectors.

2.3.3 Avoiding Duplication and Leveraging Expertise

The project team will coordinate closely with our Major Partners to avoid duplication of efforts and enhance project deployment. Collaboration with the University of Alaska and other institutions will support workforce development through training, apprenticeships, and job placement programs, particularly for underserved communities.

2.3.4 Targeted Training Programs

The AKSFA program will create career pathways in clean energy. This will take place through the offering training through AWP and the University of Alaska, and will include pre-employment, apprenticeship, and university tracks to develop a skilled workforce for solar PV projects, targeting low-income and disadvantaged or underserved communities. Further, AEA and AHFC will work with local utilities, regional organizations, and communities to align training with community needs and ensure equitable access to job opportunities.

- **Technical Assistance:**
 - Support communities and stakeholders with project deployment assistance.
 - Promote adoption of best practices and industry standards.
 - Provide technical training and resources to local installers and developers, including as it relates to community ownership.
 - Develop a technical advisory panel (TAP) to provide a document outlining best practices for community and residential/multifamily solar PV installations and O&M.
- **Workforce Training:**
 - Provide training and workforce development for high-quality careers in the solar-electric power industry.
 - Identify workforce needs for each community solar project, develop the local hiring dashboard across communities, and provide a pathway to education and training across providers.
 - Engage with training providers, communities, and community organizations.
 - Leverage existing certification programs and apprenticeship opportunities.
 - Collaborate with local and regional training providers to develop comprehensive workforce training programs.

Section 3: Timeline and Milestones

3.1 Program Year One: Planning

3.1.1 *Quality Assurance:*

- **Quality Management Plan (QMP):**
 - **Activity:** Write Quality Management Plan
 - **Responsible:** AEA
 - **Milestone:** Quality Management Planning
 - **Deliverable:** Quality Management Plan document
 - **Stakeholder Engagement:** Technical Advisory Panel
 - **Timing:** January 2025 – April 2025
- **Quality Assurance Project Plan (QAPP):**
 - **Activity:** Write Quality Assurance Project Plan
 - **Responsible:** AEA
 - **Milestone:** Quality Assurance Project Planning
 - **Deliverable:** Quality Assurance Project Plan document
 - **Stakeholder Engagement:** Technical Advisory Panel
 - **Timing:** January 2025 – April 2025
- **Siting Quality Assurance and Best Practices:**
 - **Activities:**
 - Establish siting plan for residential/multifamily solar PV systems
 - Create documentation for initial inspections on first five residential/multifamily solar PV system by new installers, with annual inspections to be carried out thereafter
 - Create documentation for inspections of all Community Solar PV systems
 - Establish best practices document for Community Solar PV systems
 - Pre-screen communities for community solar based on the availability of adequate sites for solar arrays, energy storage systems, and supporting equipment through conversations with local leaders
 - Adapt AHFC's in-house Building Monitoring System (web-based software) for remote monitoring of rooftop solar installations (with homeowner permission)
 - **Responsible:** AEA, AHFC
 - **Milestones:**
 - Residential siting plan in place
 - Communities pre-screened for adequate siting options for Community Solar installations
 - Best practices in place for Community Solar installations
 - Inspection process developed for residential/multifamily solar PV systems
 - Inspection process developed for community solar PV systems
 - **Deliverables:**
 - Residential siting plan document

- List of communities pre-screened for adequate siting options
 - Documentation of best practices for Community Solar installations
 - Inspection checklist for residential/multifamily solar PV systems
 - Inspection checklist for community solar PV systems
 - AHFC Building Monitoring System adaption for remote monitoring of rooftop solar installations
 - **Stakeholder Engagement:** Technical Advisory Panel, NREL, NREL-F, ACEP, solar PV installation companies, local utilities, local governments, village governments
 - **Timing:** January 2025 – April 2025
- **Consumer Protection:**
 - **Activities:**
 - Establish Consumer Protection Plan
 - Engage technical advisory panel and subject matter experts
 - Secure contracted support through procurement
 - Pre-screen solar installation companies to check whether they are licensed and insured, and have a track record of complying with consumer protection laws, including federal and state regulations that prohibit unfair, deceptive, and abusive practices.
 - Set up phone bank for handling customer/end-user complaints
 - **Responsible:** AEA, AHFC
 - **Milestone:** Consumer protection strategy finalized
 - **Deliverables:**
 - Stakeholder meeting notes
 - List of pre-screened, compliant contractors
 - End-user feedback phone bank
 - Complaint logging and tracking system
 - Consumer Protection Plan
 - **Stakeholder Engagement:** Technical Advisory Panel, solar PV installation companies
 - **Timing:** January 2025 – April 2025

3.1.2 Technical Advisory and Project Deployment Assistance:

- **Establish a Technical Advisory Panel (TAP):**
 - **Activities:**
 - Engage the Alaska Center for Energy and Power (ACEP)
 - Engage the National Renewable Energy Laboratory (NREL) Golden, Colorado office
 - Engage the National Renewable Energy Laboratory Fairbanks, Alaska office (NREL-F) and the Cold Climate Housing Research Center (CCHRC)
 - Engage Tanana Chiefs Conference (TCC)
 - Engage renewable energy integration experts from the five major Railbelt utilities
 - Engage rural utilities and other regional entities' technical staff whose work is related to energy
 - Engage remote community leaders, contractors, and electric utilities who've already installed microgrids which are supported by solar-electric power

- Perform a survey of potentially relevant contractors, engaging and asking for Non-Compete Agreements (NCAs) where appropriate
 - **Responsible:** AEA
 - **Milestone:** TAP established
 - **Deliverables:**
 - Engagement reports
 - Survey of relevant contractors and possible NCAs
 - TAP realization
 - **Stakeholder Engagement:** Golden Valley Electric Association (GVEA), Matanuska Electric Association (MEA), Homer Electric Association (HEA), Chugach Electric Association (CEA), City of Seward (COS), AVEC, TCC, NREL, CCHRC, ACEP, technically knowledgeable community leaders, community utilities, and relevant contractors.
 - **Timing:** October 2024 – March 2025
- **Evaluate Power Cost Equalization (PCE) Program Effects:**
 - **Activities:**
 - Assess the effects of community solar PV on this benefit for rural Alaska
 - Seek external regulatory input from the Regulatory Commission of Alaska (RCA) as relates to PCE, the Independent Power Producer model, and the planned community solar PV projects
 - Investigate the relationship of PCE to the “financial or equivalent non-financial benefit of 20% or greater,” mandate
 - **Responsible:** AEA
 - **Milestone:** PCE evaluation
 - **Deliverables:**
 - Model for community solar PV implementation and benefits tracking
 - Explainer on IPP (Independent Power Producer) model approach
 - **Stakeholder Engagement:** Regulatory Commission of Alaska
 - **Timing:** October 2024 – May 2025
- **Evaluate Utility Controls and Cost of Microgrid Integration:**
 - **Activities:**
 - Capacity and/or plan for reporting to AEA of battery energy storage system efficiency and solar PV power system output, as well as diesel-off time
 - Determine timeline regarding major parts ordering and shipping, as extremely long wait times are anticipated in some cases
 - Assess the impact of community solar PV with energy storage and energy efficiency integration into existing microgrids by, for example:
 - reporting efficiency of any existing battery storage system,
 - reporting total community average and peak(s) load,
 - reporting existing energy efficiency measures in place, plans to implement energy efficiency measures, or identified needs for energy efficiency measures, and
 - determining the effects of the aggregate planned DC rated power installation, existing DC power installations, planned or existing battery energy storage systems, energy efficiency implementation measures, and their relationship to monthly averages and daily peaks in the community load profile

- **Responsible:** AEA
 - **Milestone:** Evaluate integration costs and timeline
 - **Deliverables:**
 - Grid integration cost reports
 - Energy storage, energy efficiency, and relevant power electronics implementation cost reports
 - Stakeholder engagement reports
 - **Stakeholder Engagement:** Alaska Village Electric Cooperative (AVEC) and individual community electric utilities.
 - **Timing:** October 2024 – July 2025
- **Ensure Smooth Interconnection and Adequate Grid Infrastructure Support:**
 - **Activities:**
 - Work with utilities to ensure existing infrastructure can support new solar PV installations
 - Hold regular meetings to share information
 - **Responsible:** AHFC and AEA
 - **Milestone:** Railbelt infrastructure assessment.
 - **Deliverables:**
 - Meeting reports
 - Railbelt infrastructure assessment documentation
 - **Stakeholder Engagement:** Golden Valley Electric Association (GVEA), Matanuska Electric Association (MEA), Homer Electric Association (HEA), Chugach Electric Association (CEA), and City of Seward (COS)
 - **Timing:** Beginning in October, meetings held every other month (October 2024 – July 2025)
- **Survey and Evaluate Existing Energy Policies:**
 - **Activity:**
 - Engage with regulators and utilities
 - Evaluate the interconnection policies of the State of Alaska, the five major Railbelt electric utilities, the Alaska Village Electric Cooperative (AVEC), and individual community electric cooperatives
 - Evaluate utility and statewide Net Metering and Renewable Portfolio Standard policies
 - Consider policies alongside seasonal insolation and financial outlook for residential/multifamily solar programs
 - Assess effects of new legislation and future developments
 - **Responsible:** AEA and AHFC
 - **Milestone:** Assess various policies statewide
 - **Deliverable:**
 - Policy survey reports
 - Evaluation reports
 - Reports of engagement with utilities and regulators
 - **Stakeholder Engagement:** Regulatory Commission of Alaska (RCA), Golden Valley Electric Association (GVEA), Matanuska Electric Association (MEA), Homer Electric

- Association (HEA), Chugach Electric Association (CEA), City of Seward (COS), Alaska Village Electric Cooperative (AVEC), and individual community electric cooperatives
 - **Timing:** October 2024 – April 2025
- **Standardize Interconnection Needs:**
 - **Activity:**
 - Work with Utilities and local Solar PV installers to determine standard interconnection needs, and to standardize installations covered under the program
 - Seek input from Technical Advisory Panel
 - **Responsible:** AHFC and AEA
 - **Milestone:** Interconnection strategies in place
 - **Deliverables:**
 - Technical interconnection planning documents
 - Technical Advisory Panel report
 - Installation requirement specifications for interconnection
 - **Stakeholder Engagement:** Technical Advisory Panel, electric utilities, ACEP, CCHRC, NREL
 - **Timing:** November 2024 – June 2025
- **Simplify Residential / Multifamily Solar PV Permitting Process:**
 - **Activity:**
 - Work with authorities to obtain trade permits and streamline processes
 - Work with authorities having jurisdiction to simplify the residential/multifamily solar PV permitting process
 - Encourage certified, licensed, insured installers with a positive BBB rating for performing similar flat roof installations, with a defined and standard Solar PV package to learn if they can obtain a “trade permit” to simplify the permitting process
 - Ensure proper project siting criteria are met according to local codes and best practices
 - **Responsible:** AHFC
 - **Milestone:** Expedited and lower cost residential/multifamily solar PV permitting
 - **Deliverables:**
 - Trade permits
 - Streamline processes
 - **Stakeholder Engagement:** Regulatory Commission of Alaska, other authorities with jurisdiction on the Railbelt, municipalities, solar PV installers, trade groups, ACEP, CCHRC/NREL
 - **Timing:** November 2024 – June 2025

3.1.3 Meaningful Benefits:

- **Identify Technical Grid Resilience Metrics:**
 - **Activities:**
 - Establish straightforward pathways for determining grid resilience, reliability, and sustainability, including:

- an assessment of local grid reliability using the System Average Interruption Frequency Index [SAIFI] and System Average Interruption Duration Index (SAIDI) or equivalent analyses,
 - an assessment of affordable access to energy in the event of a grid outage,
 - an assessment of affordable access to energy in the event of a supply chain disruption,
 - locally-relevant best practices for energy storage system sizing and cost for Community Solar projects balanced against the cost of deliberate oversizing of Solar PV arrays and other system costs, and
 - any other locally quantifiable grid resilience metrics
 - **Responsible:** AEA, AHFC, and AML
 - **Milestone:** Identify metrics (SAIFI, SAIDI)
 - **Deliverables:**
 - Local grid reliability reports
 - Affordable access reports
 - Resilience metrics
 - **Stakeholder Engagement:** Denali Commission, Alaska Center for Energy and Power (ACEP), Golden Valley Electric Association (GVEA), Matanuska Electric Association (MEA), Homer Electric Association (HEA), Chugach Electric Association (CEA), City of Seward (COS), Alaska Village Electric Cooperative (AVEC), and rural communities.
 - **Timing:** October 2024 – July 2025
- **Public Engagement on Resilience Benefits and Community Ownership**
 - **Activities:**
 - Include community solar within the Alaska Comprehensive Climate Action Plan
 - Engage with rural communities to understand what resilience measures they can provide. Can they provide duration and frequency of outages?
 - Conduct localized Listening Sessions and ask questions like the following:
 - What does energy resilience mean to the community?
 - What does energy independence or energy sovereignty mean to you?
 - What, concerning energy, would encourage you to stay in your community?
 - Talk to individuals who have installed renewable energy systems in rural communities, e.g., Circuit Riders (CRs), the roving electrical technicians presently deployed by AEA for maintenance support of conventional power systems in remote communities in Alaska, and contractors
 - Seek input from regional native corporations
 - Engage in a statewide process of equity assessment to determine potential benefits to vulnerable populations and disadvantaged/underserved communities
 - AML will develop a cohort support model, including training topics and cadence
 - AML will develop an application support mechanism through the existing Alaska Energy Hub, in collaboration with AEA, as a pre-development intake hub for community solar
 - AML will develop a process for engaging communities in the development of Community Benefit and Workforce Agreements
 - Explore the possibility of community ownership through Solarize campaigns
 - Explore the possibility of community ownership through new or existing non-profits leveraging investment tax credits

- Establish selected community population tracking to determine customer retention/moves
 - **Responsible:** AEA and AML
 - **Milestone:** Develop resilience metrics and foster community ownership
 - **Deliverables:**
 - Grid resilience metrics
 - Listening Session notes
 - Local expertise reports
 - Cohort support schedule for years 2-4
 - Community population tracker years 2-4
 - Energy Hub updated and finalized
 - Community Benefits Agreement template and process launched
 - Statewide Equity Assessment
 - Alaska Comprehensive Climate Action Plan incorporation
 - Community ownership models
 - **Stakeholder Engagement:** Rural communities, regional native corporations, community electric utilities, Alaska Village Electric Cooperative
 - **Timing:** October 2024 – May 2025
- **Determining Eligible Communities for Community Solar:**
 - **Activity:**
 - Target specific subset of the previously identified LIDAC communities for Community Solar
 - Pre-screen communities based on need/fuel price/ability to pay/etc
 - Pre-screen communities based on siting, grid integration concerns, practical impacts of solar PV and energy storage installation
 - **Responsible:** AEA, AML
 - **Milestones:**
 - Needs-based ranking of communities for community solar
 - Practical impacts ranking of communities for community solar
 - Cross-list of impacts and needs-based community ranking
 - **Deliverables:**
 - List of communities eligible for community solar based on need, with rankings
 - List of communities eligible for community solar based on practical impacts, with rankings
 - Combined list of communities eligible for community solar based on need and practical impacts, with rankings
 - **Timing:** October 2025 – May 2025
- **Determining Eligible Residents for Residential/Multifamily Solar:**
 - **Activity:**
 - Target specific subset of the previously identified LIDAC residents for residential solar
 - Refine list of NOFO-qualified LIDAC potential candidates for residential solar based on participation in other programs (WAP, HER, SNAP)
 - Establish non-programmatic qualifications for residents already qualified as LIDAC under the EPA NOFO

- Refine list of NOFO-qualified LIDAC candidates for residential solar based on factors not considered by participation in other programs
 - **Responsible:** AHFC, AEA
 - **Milestone:** Selection of residents pre-qualified to benefit from residential/multifamily solar PV projects
 - **Deliverables:**
 - List of programmatic qualifiers
 - List of non-programmatic qualifiers
 - List of residents pre-selected for eligibility to benefit from residential/multifamily solar PV projects
 - **Timing:** January 2025 – April 2025
- **Define Selection Process for Community Solar PV Project Subawards:**
 - **Activities:**
 - Draft subaward RFP (Request for Proposal). Include the following scoring criteria:
 - Maximal impact to most disadvantaged/underserved communities,
 - community readiness,
 - utility readiness,
 - regional showcasing potential,
 - energy efficiency measures,
 - community load minimums,
 - estimated effective household savings after distribution of IPP value,
 - diesel-off hours per year, or equivalent,
 - battery energy storage system capacity (in hours) to support peak community load,
 - current community energy rates,
 - various resilience metrics,
 - energy storage measures,
 - and microgrid stability measures
 - Provide subaward RFP to EPA for review
 - Engage Technical Advisory Committee on scoring criteria
 - **Responsible:** AEA
 - **Milestone:** Draft subaward RFP
 - **Deliverables:**
 - Specification and elucidation of scoring criteria
 - RFP documents
 - **Timing:** October 2024 – June 2025
- **Define Sizing Guidelines for Residential Solar PV Installations:**
 - **Activities:**
 - Sizing criteria will be established respecting:
 - the sizing for systems in rated (direct-current) power, and the capability of grid operators to incorporated output (alternating-current) power,
 - the area of available unshaded roof space and/or viable ground-mount siting,
 - end-user financial situation, and
 - input from the Technical Advisory Panel
 - Conduct public stakeholder engagement activities

- **Responsible:** AHFC
 - **Milestone:** Determine if applications for systems to be installed under the residential/multifamily program will be fully funded, or in some cases partially funded, according to established sizing criteria
 - **Deliverables:**
 - Document outlining in which cases projects will be only partially funded based on end-user financials, end-user design preference, stakeholder engagement, and siting concerns
 - Document outlining project size that will be funded or partially funded based both on end-user financials and on siting concerns
 - **Stakeholder Engagement:** Technical Advisory Panel, regional Housing Authorities (RHAs), Local solar PV Installers, Rural Alaska Community Action Program (RurAL CAP)
 - **Timing:** January 2024 – April 2025
- **Define Selection Process for Residential/Multifamily Solar PV Installations:**
 - **Activities:**
 - Define process for performing household assessment after income verification to determine if an individual household or group of households is a candidate for a solar PV installation
 - In the case of individual households, solar PV installers may need to perform and file an assessment based on a template prior to installation
 - **Responsible:** AHFC, AML
 - **Milestone:** Define assessment details
 - **Deliverables:**
 - Household assessment template
 - Residential group assessment procedure
 - **Stakeholder Engagement:** Alaska Solar PV Working Group, solar PV installers
 - **Timing:** January 2025 – April 2025

3.1.4 Equitable Access and Meaningful Involvement:

- **Community Engagement:**
 - **Activities:**
 - Focus on community engagement activities vs. community outreach
 - Conduct Listening Sessions and administer surveys in target program areas to inform program design (i.e. community solar vs. residential/multifamily solar)
 - Understanding barriers to program participation and determining how those barriers can be eliminated
 - Utilize existing relationships and networks to create educational content in-house and with partners
 - Determine how to create educational content, and who will lead that effort
 - Establish Solar PV Working Group
 - **Responsible:** AEA, AML, and AHFC
 - **Milestone:** Active communication channels with citizens and community stakeholders
 - **Deliverables:**
 - Plans for creating educational documents

- Notes from Listening Sessions
 - Establishment of a Solar PV Working Group for Alaska
 - **Stakeholder Engagement:** Solar PV working group (when established), regional housing authorities, tribal entities, non-profits, public
 - **Timing:** October 2024 – July 2025
- **Engage with Low-to-Middle Income Candidates:**
 - **Activity:**
 - Work with existing weatherization partners, Housing Authorities, non-profits, and tribal entities
 - Targeted outreach to geographically dispersed low-income households and properties providing affordable housing
 - Explore considerations for housing affordability
 - **Responsible:** AEA, AHFC
 - **Milestone:** Low-to-Middle Income (LMI) candidate communities, residents, and groups identified.
 - **Deliverables:**
 - Notes from stakeholder meetings
 - Report on LMI candidate areas, groups, and individuals
 - Summary of findings regarding housing affordability
 - **Stakeholder Engagement:** Interior Weatherization Inc., RuralCAP, Alaska Community Development Corporation, tribal groups, regional Housing Authorities
 - **Timing:** December 2024 – July 2025
- **Target Underserved Areas:**
 - **Activity:** Focus on areas with a greater chance of maximizing outcomes
 - **Responsible:** AEA, AHFC
 - **Milestone:** Target areas
 - **Deliverable:** Targeting strategy and engagement reports
 - **Stakeholder Engagement:** Alaska Municipal League, community leaders
 - **Timing:** November 2024 – April 2025
- **Utilize Solarize Communication Channels to Spread Program Awareness & Ensure Equitable Access:**
 - **Activity:**
 - Utilize Solarize communication channels and methods to engage with regional housing authorities and tribal entities along with Alaska Native Tribal Health Consortium (ANTHC), Tanana Chiefs Conference (TCC), and others to spread awareness of the program
 - **Responsible:** AHFC and AEA
 - **Milestone:** Fund and launch outreach campaign
 - **Deliverables:**
 - Funding of solarize campaigns
 - Engagement reports
 - **Stakeholder Engagement:** Regional Housing Authorities, Weatherization providers, Interior Weatherization Inc., Rural Alaska Community Action Program (RurAL CAP), Alaska

Community Development Corporation, The Alaska Center (AC), REAP, ACEP, other non-profits, public

- **Timing:** January 2025 – July 2025

3.1.5 Financial Assistance Model:

- **Engage Local Partners to Maximize Equitable Program Reach:**

- **Activities:**
 - Set aside funding to work with Solarize campaign for community solar PV installations. Multiunit dwellings, renters, etc
 - Utilize local partners to engage LMI homeowners
 - AHFC will be focusing on the Railbelt but outside a few metropolitan areas, the program will be more successful if multiple households in the same area can be served at the same time
 - Organize and apply for funding, focusing on the Railbelt and underserved areas
- **Responsible:** AHFC
- **Milestone:** Identification of candidate homeowners and local partners
- **Deliverables:**
 - List of local stakeholders
 - Notes from meetings with local stakeholders
 - List of LMI homeowners
- **Stakeholder Engagement:** Regional Housing Authorities (RHAs), non-profits, internal and external partners, other Solarize stakeholders including residents.
- **Timing:** October 2024 – July 2025

- **Explore the Funding of Low-Interest Loans for Solar PV Systems via the State Green Bank:**

- **Activities:**
 - Await the State of Alaska Green Bank incorporation as the Alaska Sustainable Energy Corporation (ASEC) in December 2024
 - Conduct scoping of potential loan program of two million dollars in AKSFA finding to be channeled through ASEC
 - Present to EPA and work through program details, and make a determination whether or not to commission the loan program
 - Either launch the loan program or funnel the reserved monies into the Residential/Multifamily Solar program or the AKSFA Community Solar program, or some combination thereof
- **Responsible:** AHFC, AEA
- **Milestones:**
 - Establishment of a Green Bank for the State of Alaska as the Alaska Sustainable Energy Corporation (ASEC)
 - Loan program scoping process
 - Loan program launch or initiative cancellation and funding redirect
- **Deliverables:**
 - ASEC Articles of Incorporation
 - Scoping process report
 - Loan program agreement or request to redirect funding.
- **Stakeholder Engagement:** ASEC leadership, RCA
- **Timing:** November 2024 – July 2025

- **Evaluate Capital Stack to Subsidize Residential/Multifamily Solar:**
 - **Activities:**
 - Explore tiered subsidy or grant systems and leveraging grant funds and tax credits
 - Leverage the Alaska Sustainable Energy Corporation (“ASEC”, the “Green Bank” for the State of Alaska) for additional financing models
 - Explore other financial leveraging opportunities and other funding sources
 - **Responsible:** AHFC and ASEC.
 - **Milestone:** Develop subsidy plan
 - **Deliverable:** Financial assistance model
 - **Timing:** October 2024 – April 2025
- **Establish a Plan for O&M Funding and Action:**
 - **Activities:**
 - Define process for establishing and supporting regional and/or community operations and maintenance funds
 - Draft Memorandum of Agreement (MOA) to be made between each utility and IPP or community solar PV system operator, to include maintenance funding and direct financial benefits to residents
 - AEA to conduct audits to ensure MOA is being complied with.
 - Use a portion of revenues earned from rural community solar PV projects (less 20% household benefit) to invest in an energy fund to support Operations and Maintenance (O&M) activities throughout project life
 - Develop draft local and regional solar PV microgrid O&M plans to support Community Solar projects, using local labor and workforce development as a core assumption
 - Define a plan and process for establishing a statewide operations and maintenance or “additional support” fund, especially for Community Solar, to be implemented as necessary, under the understanding that all EPA SFA-provided funds must be utilized no later than the end of the 5th year of the granting period
 - Subaward RFPs to include a section for proposers to define process for O&M. Evaluate projects on O&M plan
 - Use approximate numbers from REF program projects to estimate O&M costs for budget development
 - Establish a residential/multifamily solar O&M conditional process based on evaluation of PV system output data automatically provided by willing residential participants and the availability of trained maintenance contractors
 - **Responsible:** AEA, AHFC
 - **Milestones:**
 - O&M fund set-up processes in place
 - Intra-community MOA drafting with allowance for O&M
 - Planning for regional O&M
 - Community-based Solar PV microgrid O&M planning
 - Residential/Multifamily Solar project maintenance planning
 - **Deliverables:**
 - O&M fund development plans
 - Community solar draft MOA
 - Community Solar PV microgrid O&M Plan template
 - Draft regional O&M plans and agreements

- Residential/Multifamily Solar project maintenance planning documentation and agreements
 - **Stakeholder Engagement:** Communities, IPPs, utilities, Technical Advisory Panel, NREL, NREL-F, RCA.
 - **Timing:** October 2024 – July 2025
- **Develop Plan for a Renewable Energy Circuit Rider Program:**
 - **Activity:**
 - Define scope of work for Renewable Energy Circuit Riders (roving electrical technicians, similar to those presently deployed by AEA for maintenance support of conventional power systems in remote communities in Alaska)
 - Determine funding sources
 - Expand existing program at AEA or establish regional Renewable Energy Circuit Rider (RECR) hubs
 - **Responsible:** AEA
 - **Milestone:** Development of a RECR program plan
 - **Deliverables:**
 - Renewable Energy Circuit Rider scoping documents.
 - List of possible funding sources
 - **Stakeholder Engagement:** Rural communities, Technical Advisory Panel, regional Native Corporations
 - **Timing:** October 2024 – July 2025

3.1.6 Distributed Solar Market Strategy:

- **Solar-PV and Solar PV Microgrid Workforce Development Methodology:**
 - **Activity:**
 - Work with local workforce development organizations and rural renewable energy IPP operators to boost training, and to work with existing training programs to maximize their reach and outcomes. Seek to fund existing programs where possible
 - Create training plans for maintenance, operations, installation, administration, and reporting
 - AEA and AML will work with community-level stakeholders to identify local and regional resources that have the opportunity to provide local workforce development.
 - AML will develop metrics for tracking job creation and quality
 - AML will collaborate with the Alaska Workforce Investment Board (AWIB) to develop local workforce availability and hire tracking system(s)
 - **Responsible:** AEA, AHFC, and AML
 - **Milestones:**
 - Identify existing solar PV workforce development programs
 - Identify methods to expand upon existing workforce development programs
 - Identify methods to create new workforce development programs
 - **Deliverables:**
 - Program identification and partnership reports
 - Training plans

- Job Creation and Quality Monitoring and Evaluation Process
 - Local Workforce Tracking System
 - **Stakeholder Engagement:** Rural and urban communities, regional organizations, rural and urban utilities, Alaska Workforce Investment Board, rural renewable energy IPP operators, Alaska Works Partnership, Department of Labor, Alaska Vocational Technical Center (AVTEC), UAF Bristol Bay Campus, Train the Trainer, Job Corps, Regional Renewable Energy Cooperatives, International Brotherhood of Electrical Workers (IBEW) and National Electrical Contractors Association (NECA) local chapters
 - **Timing:** September 2024 – July 2025.
- **Financing, Third-Party Ownership, and Market Stakeholder Engagement:**
 - **Activity:** Explore ownership structures for low-income community-owned solar PV installations, primarily on the Railbelt
 - **Responsible:** AHFC.
 - **Milestones:**
 - Financing and low-income third-party ownership model, if viable.
 - Community market engagement
 - **Deliverables:**
 - List of possible third-party owners and terms of corresponding agreements.
 - Financing and low-income third-party plan, if viable.
 - Solar PV market stakeholder group and meeting notes
 - Community Benefits Agreements
 - **Stakeholder Engagement:** Local Banks and Credit Unions, Utilities, local communities, and other market stakeholders.
 - **Timing:** October 2024 – January 2025.
 - **Develop Training and Apprenticeship Strategy:**
 - **Activities:**
 - Facilitate roundtable with AML and AWP (Alaska Works Partnership)
 - Look into workforce development “bundling” with the Arctic Research Consortium of the United States (ARCUS) Teachers and Researchers Exploring and Collaborating (PolarTREC) programs (PolarTREC 1 and PolarTREC2)
 - Facilitate a workforce roundtable with TCC/ANTHC to avoid duplicating efforts
 - Reach out to community leaders concerning the possibility of local hire for their projects
 - Establish best practices for setting up a local workforce during installation phase, with input from local leaders and Technical Advisory Panel
 - Establish solar PV operator training courses at AVTEC similar to the existing bulk fuel and power plant operator trainings
 - Ensure that project installations meet requirements to receive Investment Tax Credits (ITCs) and Production Tax Credits (PTCs), e.g., adequate ratio of apprentices to journeyman electricians on an installation job
 - AML will coordinate with UA to identify or develop solar-PV-relevant courses, certificates, and curriculum
 - AML will coordinate with training providers to identify solar-PV-relevant pre-apprenticeship and apprenticeship opportunities

- AML will coordinate with AWIB, AVTEC, and other State-level agencies to identify State resources
 - AML will collaborate with the Associated General Contractors of Alaska (AGC) and others on appropriate communications platforms to share job and career opportunities
 - AML will administer studies of occupational needs assessments related to community and residential/multifamily solar
 - **Priorities for training to included development of:**
 - Rural operators,
 - Renewable Energy Circuit Riders,
 - regional solar PV installers,
 - utility clerks,
 - battery energy storage system maintenance staff, and
 - electricians
 - **Responsible:** AEA, AHFC, and AML
 - **Milestone:** Training plan in place
 - **Deliverables:**
 - Notes from stakeholder meetings
 - Project installation ITC/PTC reports
 - Draft training and apprenticeship plan document
 - **Stakeholder Engagement:** IBEW, solar PV installers, AVTEC, AWP, AML, community leaders, Technical Advisory Panel
 - **Timing:** October 2024 – July 2025
- **Fund Statewide and Regional Workforce Programs:**
 - **Activities:**
 - Provide funding to workforce development programs and cooperative electric utilities with a history of local workforce development
 - Provide funding for wraparound services that reduce barriers to participation, such as childcare, travel, and housing stipends
 - Establish how workforce development funding will be allocated across programs.
 - **Responsible:** AML, AEA, AHFC
 - **Milestone:** Fund programs
 - **Deliverables:**
 - Specified allocation of funding to different workforce development programs.
 - Funding reports
 - **Stakeholder Engagement:** Alaska Works Partnership, Department of Labor, International Brotherhood of Electrical Workers (IBEW), Alaska Vocational Technical Center (AVTEC), UAF Bristol Bay Campus, Train the Trainer, Job Corps, regional renewable energy cooperatives, IBEW, NECA
 - **Timing:** January 2025 – July 2025

3.1.7 Plan Refinement:

- **Develop Overall Program Schedule, Years 2-5:**
 - **Activity:** Define Program Implementation Schedule

- Subaward RFPs: number and frequency of awards
 - Residential/Multifamily Program Application Process and Schedule
 - Conduct public stakeholder engagement activities in rural and urban areas
- **Responsible:** AEA and AHFC
- **Milestone:** Schedule defined
- **Deliverables:**
 - Schedule
 - Stakeholder meeting notes
- **Stakeholder Engagement:** Solar PV Working Group, Alaska Municipal League, Golden Valley Electric Association (GVEA), Matanuska Electric Association (MEA), Homer Electric Association (HEA), Chugach Electric Association (CEA), City of Seward (COS), Alaska Village Electric Cooperative, and Local Communities.
- **Timing:** October 2024 – July 2025

3.1.8 Revised Workplan:

- **Submit Revised Workplan to EPA:**
 - **Activity:** Revise Workplan package
 - **Responsible:** AEA
 - **Milestone:** Consolidate feedback from initial stakeholder engagement
 - **Deliverable:** Revised workplan submitted to EPA
 - **Stakeholder Engagement:** None
 - **Timing:** January 2025 – July 2025

3.2 Program Years 2-5: Implementation

3.2.1 Year 2:

- **Award Projects to Rural Communities:**
 - **Activity:** Select communities with signed agreements from Tribal Organizations and City or Village governments. Evaluate community's capacity for ownership and plan for distribution of IPP funds to households, and plan for O&M activities, job quality, etc.
 - **Responsible:** AEA
 - **Milestone:** Award projects
 - **Deliverable:** Project awards and evaluation reports
 - **Stakeholder Engagement:** Tribal Organizations, City or Village governments, and IPPs
 - **Timing:** To be decided (TBD)
- **Deploy Solar PV Projects:**
 - **Activity:** Focus on areas with a greater chance of maximizing outcomes
 - **Responsible:** AEA and AHFC
 - **Milestone:** Begin installation of residential/multifamily and community solar PV projects

- **Deliverable:** Installation progress reports and initial project completion certificates
- **Stakeholder Engagement:** Installers, communities, residents, utilities, and Technical Advisory Panel
- **Timing:** TBD
- **Community Engagement and Outreach:**
 - **Activity:** Outreach to community stakeholders and municipal partners and management of community cohorts
 - **Responsible:** AEA, AML and AHFC
 - **Milestone:** Continue targeted outreach and education efforts
 - **Deliverable:** Ongoing community engagement reports
 - **Stakeholder Engagement:** community stakeholders and municipal partners
 - **Timing:** TBD.
- **Workforce Development:**
 - **Activity:** Implement workforce development plan
 - **Responsible:** AEA, AML, and AHFC
 - **Milestone:** Conduct ongoing training and job placement activities
 - **Deliverable:** Job placement records and training completion certificates
 - **Stakeholder Engagement:** AML, AVTEC, and others TBD
 - **Timing:** TBD

3.2.2 Year 3:

- **Expand Project Deployment:**
 - **Activity:** Continue to install solar PV projects
 - **Responsible:** AEA and AHFC
 - **Milestone:** Continued installation of residential/multifamily and community solar PV projects
 - **Deliverables:**
 - Installation progress reports
 - Project completion certificates
 - **Stakeholder Engagement:** Installers, communities, residents, utilities, and Technical Advisory Panel
 - **Timing:** TBD
- **Technical Assistance and Support:**
 - **Activity:** Continue to provide technical guidance to communities, groups, and residents who have installed, or are installing, systems
 - **Responsible:** AEA and AHFC
 - **Milestone:** Provide continued technical assistance to project stakeholders
 - **Deliverable:** Updated technical assistance resources and support reports
 - **Stakeholder Engagement:** Installers, communities, residents, utilities, and Technical Advisory Panel
 - **Timing:** TBD

3.2.3 Year 4:

- **Evaluate Project Impact:**
 - **Activity:** Measure the qualitative and quantitative impact of the residential/multifamily and community solar programs
 - **Responsible:** AEA and AHFC
 - **Milestone:** Conduct comprehensive evaluations of project outcomes
 - **Deliverables:**
 - Evaluation reports
 - Impact assessments
 - **Stakeholder Engagement:** TBD
 - **Timing:** TBD
- **Sustainability Planning:**
 - **Activity:**
 - Continue to develop O&M programs
 - Continue to expand workforce development programs
 - **Responsible:** AEA and AHFC
 - **Milestone:** Develop plans for the long-term sustainability of solar PV projects
 - **Deliverable:** Sustainability plans and funding proposals
 - **Stakeholder Engagement:** TBD
 - **Timing:** TBD.

3.2.4 Year 5:

- **Finalize Project Installations:**
 - **Activity:** Commission installations of final residential/multifamily and community solar PV projects and obtain final operational reports
 - **Responsible:** AEA and AHFC
 - **Milestone:** Complete remaining solar PV project installations
 - **Deliverable:** Final project completion certificates and operational reports
 - **Stakeholder Engagement:** TBD
 - **Timing:** TBD
- **Final Reporting and Evaluation:**
 - **Activity:** Submit final reports to the EPA
 - **Responsible:** AEA
 - **Milestone:** Conduct final evaluations and report on project outcomes
 - **Deliverable:** Comprehensive final report documenting project outcomes and lessons learned
 - **Stakeholder Engagement:** None
 - **Timing:** TBD

Section 4: Fiscal Stewardship Plan

4.1 Ensuring Compliance with Grant Terms and Conditions

AEA has established management systems and experienced staff to administer the Solar for All grant. The Finance and Accounting departments manage fiscal compliance and reporting requirements for grants and sub-awards. Internal control procedures are in place to ensure compliance reviews, budgetary controls, invoice approvals, and periodic reporting on project status and financials.

4.2 Description of Policies and Procedures

4.2.1 Grant Administration:

AEA will administer program funds through reimbursable grants to selected community solar PV projects in rural Alaska. Payments will be made following a multi-step verification and review of submitted invoices and progress reports. A Project Management Plan (PMP) will be developed for each community solar PV project, outlining project objectives, known risks, reporting requirements, and specific scope and budget requirements. All PMPs will undergo review by AEA's Grants and Finance departments, the Program Manager, and the Executive Director.

4.2.2 Consumer Protection:

AEA's consumer protection plan will be finalized during the first year's planning period, informed by the program's advisory committee and subject matter experts. Contracted support will be secured through a procurement process prior to implementation. Solar PV installation companies must be licensed and insured, and all program partners must comply with applicable consumer protection laws, including federal and state regulations that prohibit unfair, deceptive, and abusive practices.

4.2.3 Complaint Monitoring and Resolution:

AHFC has a history of effectively handling consumer interactions and complaints through large phone banks for previous state rebate programs and COVID-19 relief efforts. This system will be utilized for the Solar for All program to ensure client concerns are addressed promptly. Complaints will be monitored, tracked, and logged, and any program partner receiving excessive valid complaints will be removed from the program.

4.2.4 Quality Control Inspections:

Initial inspections will be conducted on the first five solar PV installations by new installers under the residential/multifamily rooftop program, and for every community solar PV project. Annual inspections will occur on a representative sample of installations thereafter. AHFC is exploring the use of its in-house developed, web-based BMON (Building Monitoring) Software for remote monitoring of rooftop solar PV installations with the homeowner's permission.

4.3 Financial Risk Management Requirements

4.3.1 Oversight and Monitoring

The Alaska Energy Authority will oversee and monitor the grant agreement through various activities, including reviewing the qualifications of key personnel, monitoring subrecipient management, and verifying compliance with the Solar for All Workplan. Periodic reviews of financial assistance transactions and costs incurred will ensure the appropriate expenditure of grant funds.

All EPA SFA policies terms and conditions, especially those relating the reduction of fraud, waste, and abuse, including formal policies for program oversight, whistleblower protections, and the avoidance of conflict of interest, will be communicated by AEA directly to subgrantees and community stakeholders.

4.3.2 Internal Controls

Each recipient and subrecipient must comply with the standards for internal controls as described in the Code of Federal Regulations title 2, CFR 200.303. This includes maintaining adequate documentation and procedures to ensure accountability and prevent fraud.

4.4 Implementation Plan

4.4.1 Project Controls:

AEA will establish a technical advisory panel to develop a document outlining best practices for community and residential/multifamily solar PV installations, and operations and maintenance (O&M). This advisory panel will ensure that the program meets its objectives effectively and efficiently.

4.4.2 Technical Assistance and Workforce Training:

AEA will collaborate with AWP and other entities to coordinate and implement workforce development training. This will include techno-economic analysis and equity and stakeholder engagement activities conducted .

Section 5: Budget Narrative

The budget for the Alaska Solar for All Program will support the implementation of the project, providing costing for personnel, fringe benefits, travel, equipment, supplies, contractual services, construction, and allowing for other costs, indirect costs, and cost share. The budget is structured to ensure effective use of resources in achieving the project's goals and objectives.

The proposed budget is finalized for Year One planning activities. Budget allocations for program years 2 through 5 are currently approximate and will be refined based on activities conducted during Year One. AEA will provide an updated budget for Years 2 through 5 upon the completion of the planning year in July 2025.

5.1 Personnel

The personnel budget accounts for the salaries and wages of AEA project staff, who will oversee the management, coordination, and execution of project activities. AEA does not expect any changes to the staffing structure in the coming years. An annual 2% salary adjustment has been included to account for cost-of-living increases.

- **Director of Renewable Energy and Energy Efficiency, NAME REDACTED FOR PUBLIC RELEASE:**
 - Serves as the Principal Investigator.
 - Oversees the strategic direction of the renewable energy and energy efficiency initiatives within the program.
- **Project Manager, NAME REDACTED FOR PUBLIC RELEASE:**
 - Manages overall project coordination and execution.
 - Oversees technical aspects of solar PV project deployment, ensuring that projects meet technical specifications and timelines.
 - Coordinates with internal teams and external program partners to ensure project milestones are achieved.
 - Acts as the reporting officer to the EPA, in charge of responding to Information Collection Requests.
- **Renewable Energy and Energy Efficiency Program Manager, NAME REDACTED FOR PUBLIC RELEASE:**
 - Provides programmatic support and coordination with external stakeholders and program partners.
 - Leads community engagement and outreach activities to ensure community involvement and buy-in.
 - Manages budgeting, financial reporting, and analysis to ensure financial compliance and transparency.
- **Assistant Project Manager, NAME REDACTED FOR PUBLIC RELEASE:**
 - Supports program management functions, including compliance with grant requirements and development of programmatic strategies.
 - Assists in monitoring project progress and preparing reports for stakeholders.
- **Project Manager (TBD):**
 - Provides additional support in program management, compliance oversight, and development functions.
 - Assists in coordinating multiple projects and ensuring they align with the program's goals.

- **Executive Director, NAME REDACTED FOR PUBLIC RELEASE:**
 - Provides executive oversight and strategic guidance for all programmatic activities.
 - Ensures alignment of the program’s objectives with organizational goals and stakeholder expectations.
- **Communications Director, NAME REDACTED FOR PUBLIC RELEASE:**
 - Develops and manages communication strategies, including content for the AEA website, social media, public notices, and newsletters.
 - Supports community outreach and engagement efforts to increase program visibility and public awareness.
- **Chief Operating Officer, NAME REDACTED FOR PUBLIC RELEASE:**
 - Oversees the operational aspects of program implementation.
 - Ensures that resources are allocated efficiently and that program activities are executed smoothly.
- **Legal Counsel, NAME REDACTED FOR PUBLIC RELEASE:**
 - Reviews all external agreements, contracts, and other legal documents to ensure compliance and mitigate risk.
 - Provides legal advice and support on matters related to program implementation and operations.
- **Director of Planning, NAME REDACTED FOR PUBLIC RELEASE:**
 - Oversees program planning activities, including the development of strategic plans and program frameworks.
 - Provides support in aligning program activities with long-term organizational goals.
- **Planning Manager, NAME REDACTED FOR PUBLIC RELEASE:**
 - Assists in the development and refinement of program plans.
 - Coordinates planning activities and supports program development initiatives.
- **Contracting Officer, NAME REDACTED FOR PUBLIC RELEASE:**
 - Develops and manages contracting documents and oversees procurement processes.
 - Ensures compliance with procurement policies and procedures.
- **Geographic Information Systems Specialist, NAME REDACTED FOR PUBLIC RELEASE:**
 - Creates visual content, such as maps and spatial data analyses, to support community engagement, reporting, and program development.
 - Provides GIS-based analysis and support for project planning and implementation.
- **Rural Assistance Manager, NAME REDACTED FOR PUBLIC RELEASE:**
 - Manages rural assistance staff and coordinates activities aimed at supporting rural communities.
 - Oversees outreach efforts and provides support to rural areas in implementing solar PV projects.
- **Circuit Rider Technician, NAME REDACTED FOR PUBLIC RELEASE:**
 - Travels to rural communities to provide on-site technical assistance and conduct utility assessments.
 - Supports the maintenance and troubleshooting of solar PV installations in remote areas.
- **Circuit Rider Technician, NAME REDACTED FOR PUBLIC RELEASE:**
 - Works alongside the Circuit Rider Technician team to provide technical assistance and utility assessments in rural communities.
 - Ensures solar PV projects are properly installed and maintained in remote areas.

- **Executive Assistant, NAME REDACTED FOR PUBLIC RELEASE:**
 - Provides administrative support to the project staff, including scheduling, documentation, and communication coordination.
 - Assists in preparing public notices and responding to public inquiries and records requests.

Year One Personnel Costs: \$331,667

Total Personnel Costs: \$1,775,647

5.2 Fringe Benefits

Fringe benefits are calculated as a percentage (76.09%) of the total salaries and wages. Fringe benefit calculations are governed by AEA's Negotiated Indirect Cost Rate Agreement (NICRA) agreement with the Department of the Interior (DOI), which is AEA's cognizant federal agency. See DOI NICRA for additional details on Fringe benefit calculations.

Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs. Vacation, holiday, sick leave, and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for the salaries and wages. Separate claims for the costs of these paid absences are not made. Fringe benefits include health insurance, retirement contributions, and other standard employee benefits.

Year One Fringe Benefits Cost: \$252,366

Total Fringe Benefits Cost: \$1,351,090

5.3 Travel

Travel expenses cover local, regional, and national travel required for project implementation, including site visits, stakeholder meetings, and conferences. This includes transportation, lodging and per diem.

In Year One, AEA plans for staff to visit eight energy regions to conduct stakeholder engagement activities for the community solar program. Each visit will last two days and involve one traveler. These visits may be conducted by the program manager or circuit rider staff. AEA staff will engage with community members from local governments, tribal organizations, and local utilities. Additionally, staff may perform infrastructure assessments focusing on community powerhouses, bulk fuel facilities, and improvements to distribution and energy efficiency within the community.

Assumptions:

- One Traveler per Trip
- Destinations Include: Eight Energy Regions (Interior, Bristol Bay, Bering Straits, Northwest Arctic Borough, Lower Yukon Kuskokwim, Copper Valley, Southeast and Aleutians)
- Purpose of Travel: Conduct stakeholder engagement activities.
- Estimated Per Trip Costs:
 - Flights to Rural Alaska estimated at \$1,200/roundtrip
 - Lodging: \$150 per night for two estimated overnight stays

- Per diem: \$60 per person per day in travel status

Year One Travel Costs: \$15,360

Total Travel Costs: \$133,030

5.4 Equipment

This budget does not include any equipment costs.

Year One Equipment Costs: \$0

Total Equipment Costs: \$0

5.5 Supplies

This budget does not include any supply costs.

Year One Supplies Costs: \$0

Total Supplies Costs: \$0

5.6 Contractual

Solar Working Group Facilitator: AEA will conduct a competitive solicitation process to select a contractor to facilitate the Solar Working Group, which will serve as a public-facing platform to raise program awareness, engage stakeholders, and carry out outreach activities for both community and residential programs. The selected contractor will organize monthly meetings, develop newsletters, and host public outreach and education events. A request for proposals (RFP) will be issued to attract qualified consultants with relevant expertise.

A contract will be established with the working group facilitator, who will coordinate and manage activities among various stakeholders involved in the Solar for All program. The facilitator will facilitate regular meetings with community representatives, local government officials, utilities, technical experts, and program partners to ensure effective communication and collaboration. The working group facilitator will work closely with AML to conduct stakeholder engagement activities.

The budget for this contract covers, in part, the cost of workshop and conference support, and hosting costs such as facilitator travel fees, lodging, room rental, advertising and facilitation of any workshop or small conference that is organized as part of the AKSFA program.

Responsibilities will also include documenting meeting outcomes, tracking action items, and ensuring alignment with the program's objectives and timelines

- Type of Contract: AEA will award a one-year contract with four one-year extension term agreements for these services. The contract will be a Time and Expense Contract.

- **Estimated Cost:** AEA anticipates that the cost of the working group coordinator will not exceed \$40,000 per year for five program years. The total expected cost for the contract will be \$200,000.

Year One Contractual Costs: \$40,000

Total Contractual Costs: \$200,000

5.7 Construction

This budget does not include any construction costs.

Year One Construction Costs: \$0

Total Construction Costs: \$0

5.8 Other

AEA will enter into subawards with coalition partners to carry out their respective scopes of work. Additionally, AEA plans to establish subawards with rural communities to provide financial assistance for the construction of community solar projects. A summary of these sub-awardees and their scopes of work is provided below:

- **Other – Subaward, Alaska Housing Finance Corporation (AHFC):**
 - **AHFC Introduction:**
 - AHFC is a public corporation that provides affordable housing opportunities and financing programs to Alaskans. AHFC plays a key role in addressing the state’s housing needs by offering mortgage loans, energy efficiency programs, and rental assistance. It also partners with developers, local governments, and other organizations to support sustainable housing and community development initiatives across Alaska. Through its various programs, AHFC helps improve the quality of life for residents by promoting safe, affordable, and energy-efficient housing solutions.
 - **Description of Activity:**
 - AHFC plays a critical role in the Solar for All (SFA) program by overseeing the delivery of the residential solar program. AHFC works to ensure that low-income and disadvantaged/underserved Alaskans gain access to rooftop solar, significantly reducing energy costs for these residents. The corporation leverages its experience from programs like the Weatherization Assistance Program and collaborates with key stakeholders to provide financial assistance, including grants and incentives, to promote solar adoption and energy resilience across the state.
 - **Subaward Amount:** \$29,400,000
 - **Provided as part of a Revolving Loan Fund (Y/N):** N
 - **Duration of Subaward:** Years 1-5
 - **Adequacy of Subrecipient systems:**
 - 2 CFR 200.331
 - 2 CFR 200.334

- **Other – Subaward, Alaska Municipal League (AML):**
 - **AML Introduction:**
 - AML is a statewide non-profit organization that provides services to local governments and other infrastructure owners to improve living conditions and support economic and workforce development.
 - **Description of Activity:**
 - Stakeholder Engagement and Community Benefits – AML will engage local governments and communities in planning and deployment efforts. Their responsibilities include developing outreach strategies to ensure meaningful community involvement and support for solar energy initiatives. AML will also establish a cohort support model, including training topics and cadence, to provide ongoing support to communities. They will facilitate the development of Community Benefit and Workforce Agreements and conduct statewide equity assessments to identify potential benefits for vulnerable populations and disadvantaged/underserved communities. Year 1 activities include:
 - Equity assessment to determine potential benefits to vulnerable populations and disadvantaged/underserved communities – AML will utilize available federal and state data to produce criteria for assessing LIDAC, informed by community representatives and the advisory committee.
 - M: Statewide Equity Assessment – Q1
 - Partner/stakeholder engagement strategy as part of public involvement plan – AML will evaluate potential partners and impacted stakeholders and develop a public involvement plan consistent with the goals of the AKS4A program.
 - M: Stakeholder Engagement Strategy – Q2
 - Develop process for tracking job creation and quality – AML will work with program partners to identify metrics and mechanisms to track job creation and quality.
 - M: Job Creation and Quality Monitoring and Evaluation Plan – Q4
 - Develop cohort support model, including training topics and cadence. In preparation for hosting community solar cohorts, comprised of communities selected for project awards, AML will solicit input into needs, best practices, and support for LIDACs.
 - M: Cohort Schedule for Years 2-4 – Q3
 - Develop application support mechanism through Alaska Energy Hub, in collaboration with AEA, as a pre-development intake hub for community solar. – The [Alaska Energy Hub](#) is available for communities to submit projects in pre-development stages for consideration of technical assistance, and identify support needs for LIDACs. The Hub can be used prior to a call for projects, as part of a notice of intent to apply process that increases the assistance available to LIDACs.
 - M: Energy Hub updated and finalized – Q4
 - Develop process for engaging communities in development of Community Benefit and Workforce Agreements, including to initiate working group. – AML will utilize [DOE tools](#) related to Community Benefit and Workforce Agreements to provide support, resources, and best practices for LIDACs, in relation to the development and deployment of community solar projects. A working group will determine appropriateness of materials for advancing community ownership and meaningful benefits.
 - M: CBA template and process launched – Q4

- AML to include community solar within Alaska Comprehensive Climate Action Plan – AML will work with AEA to ensure that the community and residential solar program are included as a measure of Alaska’s EPA CCAP.
 - M: CCAP delivered to EPA July 2025 – Q4
 - Collaborate with AWIB to develop local workforce availability and hire tracking system – AML will work with AWIB and Alaska Job Centers to ensure that communities have access to local hire and training opportunities.
 - M: Tracking System launched – Q4
 - Workforce Development – AML will administer labor and workforce development efforts in collaboration with partners such as Alaska Works Partnership (AWP), the University of Alaska (UA), the Alaska Safety Alliance (ASA), and the Associated General Contractors of Alaska (AGC). AML is responsible for coordinating workforce development initiatives that focus on local hiring, skills training, and apprenticeship programs, particularly for underserved and disadvantaged communities. Year 1 activities include:
 - AML to coordinate with UA to identify or develop solar-relevant courses, certificates, and curriculum.
 - AML to coordinate with local, regional, and statewide training providers to identify solar-relevant pre-apprenticeship and apprenticeship opportunities.
 - AML to coordinate with AWIB, AVTEC, and other State-level agencies to identify State resources.
 - AML to collaborate with AGC and others on appropriate communications platforms to share job and career opportunities.
 - AML to administer study of occupational needs assessment related to community and residential solar.
 - AML to work with community-level stakeholders to identify local and regional resources that have the opportunity to provide local workforce development.
 - Milestone: Workforce Development Plan - Q4
 - Through partnerships with AWP, UA, ASA, AGC, and other organizations, AML helps ensure that the SFA program will contribute to high-quality jobs, and that local workers are trained to maintain and operate solar infrastructure. This includes facilitating pre-employment training, technical education, and workforce planning tailored to the needs of the SFA program.
 - The budget for this subaward covers, in part, the cost of workshop and conference support, and hosting costs such as AML’s travel fees, lodging, room rental, advertising and facilitation of any workshop or small conference that is organized as part of the AKSFA program.
 - **Subaward Amount:** \$2,550,000
 - **Provided as part of a Revolving Loan Fund (Y/N):** N
 - **Duration of Subaward:** Years 1-5
 - **Adequacy of Subrecipient systems:**
 - 2 CFR 200.331
 - 2 CFR 200.334
- **Other – Subaward, Alaska Center for Energy and Power (ACEP):**
 - **ACEP Introduction:**
 - ACEP is a research organization within the University of Alaska Fairbanks, focused on addressing energy challenges and opportunities specific to Alaska and

other Arctic regions. ACEP conducts applied energy research, exploring innovative technologies and strategies for renewable energy, microgrids, and energy efficiency, with a focus on developing solutions for remote and off-grid communities. Through partnerships with government, industry, and local communities, ACEP aims to advance sustainable and resilient energy systems that reduce costs, improve energy security, and promote economic development across Alaska.

- **Description of Activity:**
 - ACEP will provide techno-economic analysis and support for project development and implementation. They will assist in evaluating the technical and economic feasibility of proposed solar PV projects, including community-scale solar PV installations and battery energy storage solutions.
 - ACEP will also contribute to developing best practices for solar PV deployment and operations and maintenance (O&M) strategies, ensuring projects are designed for long-term sustainability and resilience. As part of their role, ACEP will collaborate with other stakeholders, including the University of Alaska and national laboratories, to provide technical assistance and promote the adoption of best practices and industry standards.
- **Subaward Amount:** \$500,000
- **Provided as part of a Revolving Loan Fund (Y/N):** N
- **Duration of Subaward:** Years 1-5
- **Adequacy of Subrecipient systems:**
 - 2 CFR 200.331
 - 2 CFR 200.334

• **Other— Subawards, Subgrants to rural Alaskan Communities for Community Solar Projects:**

- **General Community Introduction:**
 - Rural Alaskan communities are remote, often accessible only by air or water, and characterized by small populations with strong ties to Indigenous cultures. These communities face significant infrastructure and energy challenges, relying on costly diesel-powered microgrids for electricity. Despite these obstacles, they maintain a deep connection to the land and a resilient community spirit. Alaska's Solar for All (SFA) program aims to install solar projects in these rural areas, reducing their dependence on diesel generators, lowering energy costs, and promoting long-term sustainability in these isolated regions.
- **Description of Activity:**
 - The process for selecting the communities that will receive grant funding will be developed during the year one planning period, ensuring that the selection criteria align with the goals of the program and the needs of rural Alaskan communities. The specific grantees will be cooperative utilities representing the communities, municipal or tribal governments, Independent Power Producers representing the communities, or non-profits representing the communities, and written guidance for the subawards will be developed during the planning year and provided to the EPA. Factors such as community readiness, energy costs, geographical location, and the potential for solar integration into existing energy systems will likely be considered. AEA aims to construct eight community solar projects in rural Alaska, with a focus on reducing reliance on diesel generators, lowering energy costs, and improving energy resilience. These projects will be designed to benefit low-income and disadvantaged/underserved communities, ensuring equitable access to renewable energy resources and fostering local economic growth through job creation and infrastructure improvements.

- AEA will provide subgrants to selected communities to support the deployment of community solar PV projects. The aim is to promote community ownership of solar PV resources, enhance local energy security, and deliver tangible economic and environmental benefits to participating communities.
- **Subaward Amount:** \$24,863,122
- **Provided as part of a Revolving Loan Fund (Y/N):** N
- **Duration of Subaward:** Years 2-5
- **Adequacy of Subrecipient systems:**
 - 2 CFR 200.331
 - 2 CFR 200.334

Year One Other Costs: \$32,850,000

Total Other Costs: \$57,713,122

5.9 Indirect

Indirect costs are calculated based on a negotiated indirect cost rate agreement (NICRA) and cover general overhead expenses such as utilities, office space, and administrative support not directly charged for the project. The project team is using a Modified Total Direct Cost (MTDC) base, and are excluding the appropriate items from that base. The indirect cost rate is for use on grants, contracts, and other agreements to which 2 CFR Part 200 applies. AEA's indirect rate is 31.85%.

<u>Start Date</u>	<u>End Date</u>	<u>Rate Type</u>	<u>Rate Details</u>				
			<u>Name</u>	<u>Rate</u>	<u>Base</u>	<u>Location</u>	<u>Applicable To</u>
<u>07/01/2023</u>	<u>06/30/2024</u>	<u>Provisional</u>	<u>Fringe Benefits</u>	<u>76.09%</u>	<u>(A)</u>	<u>All</u>	<u>All Programs</u>
			<u>Indirect</u>	<u>31.85%</u>	<u>(B)</u>	<u>All</u>	<u>All Programs</u>
			<u>Name</u>	<u>Rate</u>	<u>Base</u>	<u>Location</u>	<u>Applicable To</u>
<u>07/01/2023</u>	<u>06/30/2024</u>	<u>Provisional</u>	<u>Fringe Benefits</u>	<u>76.09%</u>	<u>(A)</u>	<u>All</u>	<u>All Programs</u>
			<u>Indirect</u>	<u>31.85%</u>	<u>(B)</u>	<u>All</u>	<u>All Programs</u>

<u>Start Date</u>	<u>End Date</u>	<u>Rate Type</u>	<u>Rate Details</u>				
			<u>Name</u>	<u>Rate</u>	<u>Base</u>	<u>Location</u>	<u>Applicable To</u>
<u>07/01/2023</u>	<u>06/30/2024</u>	<u>Provisional</u>	<u>Fringe Benefits</u>	<u>76.09 %</u>	<u>(A)</u>	<u>All</u>	<u>All Programs</u>
			<u>Indirect</u>	<u>31.85 %</u>	<u>(B)</u>	<u>All</u>	<u>All Programs</u>
			<u>Name</u>	<u>Rate</u>	<u>Base</u>	<u>Location</u>	<u>Applicable To</u>
<u>07/01/2024</u>	<u>06/30/2025</u>	<u>Provisional</u>	<u>Fringe Benefits</u>	<u>76.09 %</u>	<u>(A)</u>	<u>All</u>	<u>All Programs</u>
			<u>Indirect</u>	<u>31.85 %</u>	<u>(B)</u>	<u>All</u>	<u>All Programs</u>

(A) Base: Total direct salaries and wages, excluding fringe benefits.

(B) Base: Total direct costs, less capital expenditures (building, individual items of equipment, alterations and renovations) and subawards in excess of the first \$25,000.

Treatment of Fringe Benefits: Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs.

Treatment of Paid Absences: Vacation, holiday, sick leave, and other paid absences are included in salaries and wages and are claimed on grants, contracts, and other agreements as part of the normal cost for the salaries and wages. Separate claims for the costs of these paid absences are not made.

AEA's full NICRA document is attached to this submission.

Year One Indirect Costs: \$251,422

Total Indirect Costs: \$1,277,111

5.10 Items that Require Prior Approval

At this time, AEA has not identified any items that require prior approval from the EPA.

5.11 Unallowable Costs

AEA is not proposing any unallowable costs listed in the budget guidance document.

5.12 Conferences or Workshops

Questions pertaining to Conferences or Workshops:

1. Does this scope of work include conducting conferences or workshops?
 - a. Yes, the program will likely fund or partially fund workshops and conferences.
2. Who is initiating the conference/workshop/meeting?
 - a. AEA, Contractual Working Group Facilitator and AML
3. How is the conference being advertised?
 - a. Social Media, Email, Websites, Print, other.
4. Whose logo will be on the agenda and conference/workshop/meeting materials?
 - a. AEA
5. What is the percentage distribution of persons attending?
 - a. 10% AKSFA Team, 90% Stakeholders
6. Will there be any proceedings or analysis and will the information be disseminated back to the appropriate community?
 - a. Yes
7. Do you anticipate program income being generated from this conference/workshop/meeting?
 - a. No

5.13 Meals and Light Refreshments, Other

Questions pertaining to Meals and Light Refreshments, and Other:

1. Are costs for light refreshments, meals or beverages included in the workplan or budget?
 - a. Not at this time.

2. Will the assistance award result in the development of any copyrighted software or written materials?
 - a. No
3. Could an invention result from this project? (If yes, provide disposition instructions)
 - a. No
4. Does the project involve animal subjects?
 - a. No
5. Does the project involve collecting identical information from 10 or more people?
 - a. Yes
6. Any work outside of the US included in the grant?
 - a. No
7. Does the grant involve or relate to geospatial information? Includes also identifying geographic location, or application/tools associated with such information—GPS mapping or statistical data?
 - a. Yes