

Bipartisan Infrastructure Law: Section 40101(d), Grid Resilience Formula Grants

June 2025



About the Alaska Energy Authority

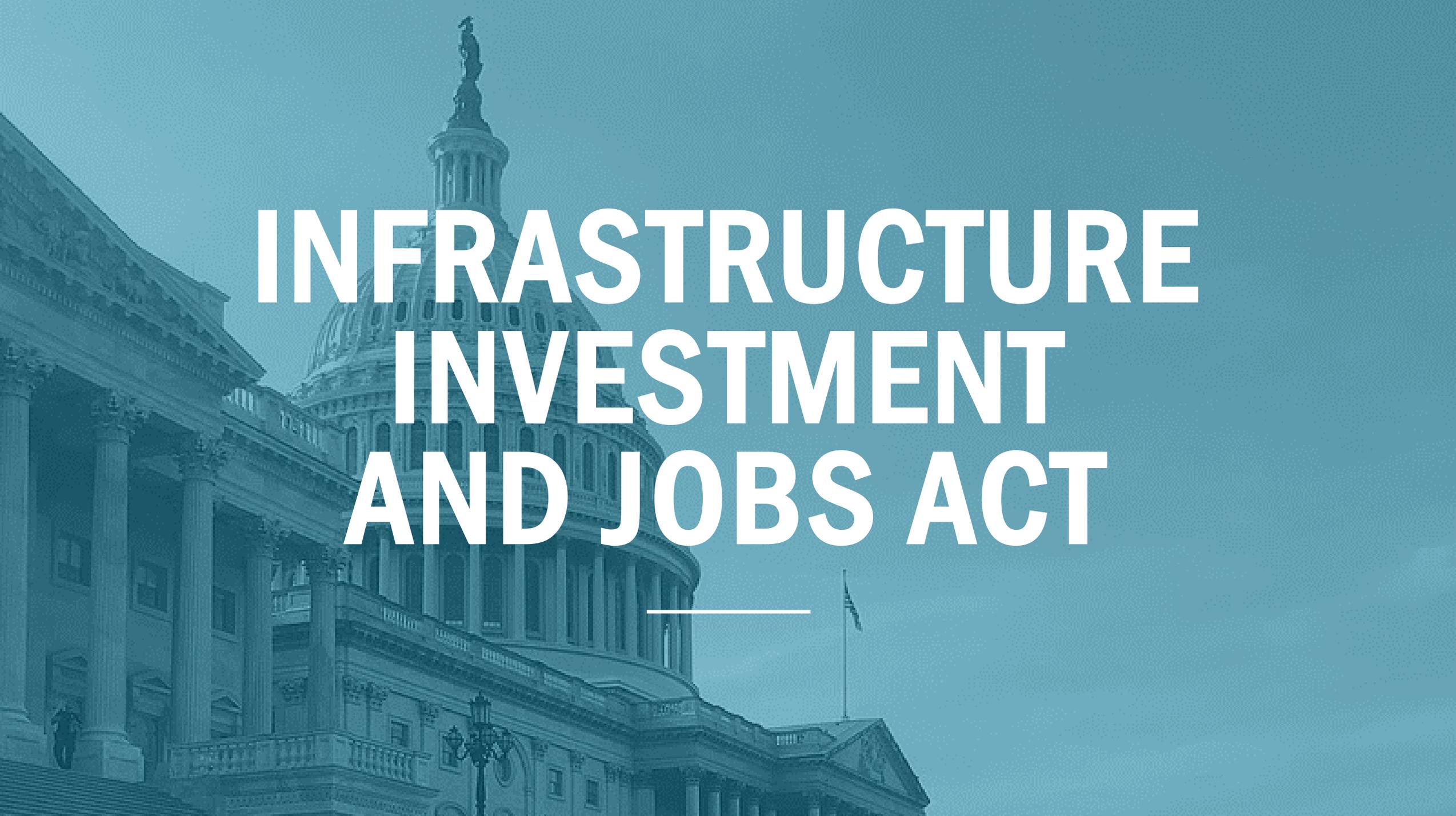


Our Mission

Reduce the cost of energy in Alaska.



Created in 1976 by the Alaska Legislature, the Alaska Energy Authority (AEA) is a public corporation of the State of Alaska governed by a board of directors with the mission to “reduce the cost of energy in Alaska.” AEA is the state's energy office and lead agency for statewide energy policy and program development.



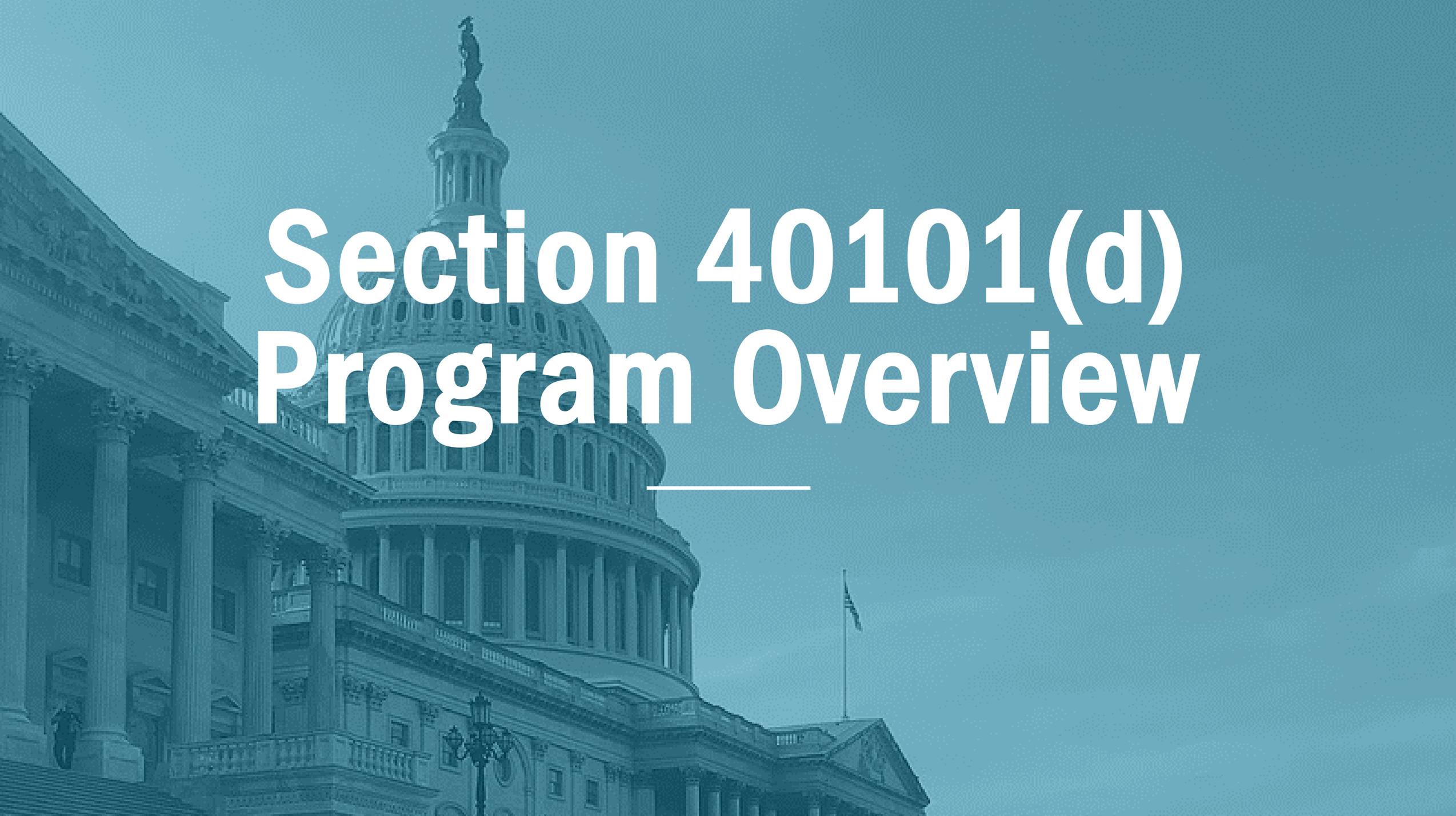
INFRASTRUCTURE INVESTMENT AND JOBS ACT

IIJA Highlights: “Building a Better Grid Initiative”



The **Preventing Outages and Enhancing the Resilience of the Electric Grid** formula grants to States and Tribal nations will support projects that improve the resilience of power grids — activities could include:

- Grid hardening
- Relocating or reconductoring powerlines
- Improvements to make the grid resistant to extreme weather
- Increasing fire resistant components
- Implementing monitoring, controls, and advanced modeling for real-time situational awareness
- Integrating distributed energy resources like microgrids and energy storage



Section 40101(d) Program Overview

Alaska Funding Allocation



**FUNDING FOR
ALASKA**
\$39.8 million federal



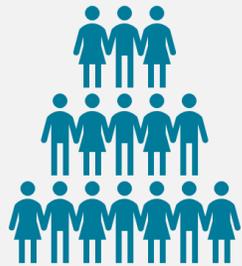
PUBLIC COMMENT PERIOD
December 13, 2022 –
January 31, 2023

The Preventing Outages and Enhancing the Resilience of the Electric Grid program:

- State of Alaska funding allocations are distinct from tribal allocations.
 - Federal fiscal year 2022 (awarded round 1) \$12.1 million
 - Federal fiscal year 2023 (awarded round 1) \$10 million
 - Federal fiscal year 2024 (To be awarded via June 2025 RFA) \$17.6 million
- State match of 15% required to be eligible for IIJA funding under this program has been fully secured for the first three years of the program.

DOE Determination of Allocations

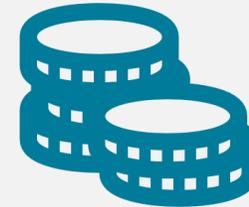
Formula for allocations based on:



Population



**Probability of
Disruptive
Events**



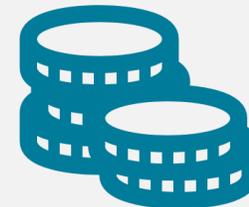
**Expenditure
on Mitigation
Efforts**



**Geographic
Area**



**Severity of
Disruptive
Events**



**40101(d) Funding
cannot be used
with GRIP Funded
Projects**

An aerial photograph of a small town nestled in a valley, with a large lake in the foreground and rolling hills in the background. The entire image is overlaid with a semi-transparent blue filter. The text 'Program Scope' is centered in the middle of the image in a large, white, sans-serif font. A small white horizontal line is positioned below the text, centered under the word 'Scope'.

Program Scope

Disruptive Events



DEFINITION

IIJA section 40101(a)(1)

A **disruptive event** is defined as:

"an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster."

Eligible Applicants



DEFINITION

2 CFR 910.126,
Competition
&

IJA Section 40101(d)

Who can **receive an award** under this formula grant program?

States: U.S. States, U.S. Territories (Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, and Northern Mariana Islands) and the District of Columbia

Indian Tribes: all Federally Recognized Indian Tribes as defined in accordance with Section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304), 42 U.S.C. 18701(2)

Eligible Entities for Subawards*



- Electric **grid operator**
- Electricity **storage operator**
- Electricity **generator**
- Transmission **owners** or **operators**
- Distribution **provider**
- Fuel **supplier**
- Any other **relevant entity**, as determined by the Secretary of DOE

*Entities holding a Certificate of Public Convenience and Necessity as issued by the Regulatory Commission of Alaska.

Eligible Use of Grant Funds

- **Weatherization** technologies and equipment
- **Fire-resistant** technologies and fire prevention systems
- **Monitoring** and **control** technologies
- **Undergrounding** of electrical equipment
- **Utility pole** management
- **Relocation** of power lines
- **Reconductoring** of power lines
- **Vegetation** and **fuel-load** management
- Distributed energy resources (DERs), including **microgrids** and **battery storage** subcomponents
- **Adaptive protection** technologies
- **Advanced modeling** technologies
- **Hardening** of power lines
- **Replacement** of old overhead conductors and underground cables
- Workforce **training**

Ineligible Use of Grant Funds



Ineligible uses:

- Construction of new electric generating facility
- Construction of new large-scale battery storage facility that is not used for enhancing system adaptive capacity during disruptive events.
- Cybersecurity
- Real property
 - Acquisition of land or easements is not allowed under this grant program.
 - Improvements to real property for the purpose of grid hardening is not considered acquisition of real property for the purpose of this grant program.

Non-Federal Match Requirements



Alaska is served by small electricity utility providers that sell not more than **4,000,000 megawatts per year**.

- **Cost match requirement for sub-grantees is 1/3 of the Federal share of the cost of each respective project.**
- AEA will allow match to be provided through cash or in-kind contributions in accordance with the grant requirements.
- **AEA has provided the 15% cost match** required for access to federal formula allocation (i.e., the \$17.6 million for the current round 2 solicitation) as required by the program.



Program Narrative Overview

Metrics & Objectives



Objective 1

Objective	Metrics
<p>Reduce the likelihood and consequences of natural hazard events causing disruption to normal grid operations and critical facilities within Alaska's most populated and economically vital communities.</p>	<ul style="list-style-type: none">• Electric system reliability as measured by one of the four IEEE 1366 four main metrics by which electric system reliability is measured: SAIDI, SAIFI, CAIDI, and MAIFI.• Total number of incidents (reduced after grant investment) of power disruption caused by a natural hazard each year as compared to the average number of incidents within the past 10 years.

Metrics & Objectives



Objective 2

Objective	Metrics
<p>Equip Alaska's most populated and economically vital communities with modernized grid infrastructure that can enable consumer access to lower-cost energy. Grid improvements will affect energy resilience, increased electrification, and other evolving system needs over the coming decades.</p>	<ul style="list-style-type: none">• Total project expenditures on 69kVa equipment (substations or transmission lines) or higher, reported as a percentage of total resilience expenditures.• Number of residences and businesses served by transmission line capacity upgrades.• Miles of transmission line improved with resilience measures to mitigate impacts of disruptive events.• Average age of energy asset that has been replaced or modernized on grid infrastructure

Metrics & Objectives



Objective 3

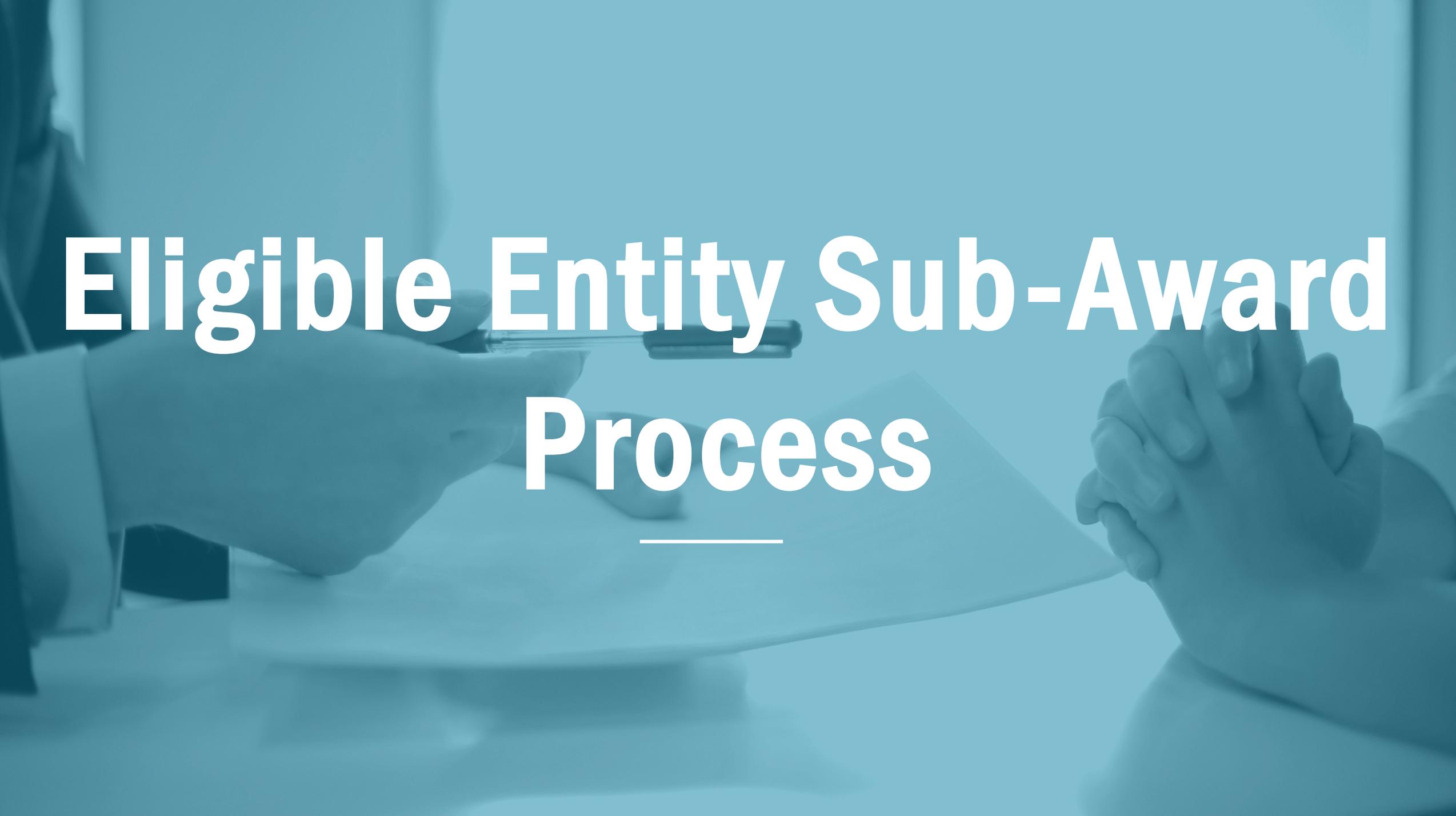
Objective	Metrics
<p>Reduce the energy burden and the cost experienced by customers within disadvantaged communities or tribal lands due to inadequate electric grid infrastructure.</p>	<ul style="list-style-type: none">• Average retail electric rate for residential customers.• Typical monthly electric bill for residential customers for 500 kWh.• Typical monthly electric bill as a percentage of community (census tract) median household income.

Metrics & Objectives



Objective 4

Objective	Metrics
<p>Increase the skilled workforce by assuring that any installed resilience measures can be operated and maintained by local workers and businesses, where possible.</p>	<ul style="list-style-type: none">• Number of new, full-time equivalent (FTE) jobs created to operate and maintain grid resilience projects.• Percentage of union vs non-union FTE jobs created to operate and maintain grid resilience projects.• Number of apprenticeships or vocational opportunities created for members of disadvantaged communities during implementation, construction, operations, or maintenance of energy resilience projects.• Workforce residing in state vs out-of-state for construction and operations.



Eligible Entity Sub-Award Process

Competitive Solicitation

AEA utilizes a **competitive solicitation process** for the issuance of sub-awards to eligible entities under Sec. 40101(d) for Grid Resiliency measures.

AEA employs a **competitive solicitation model**, in similarity with that process model currently employed in the evaluation and recommendation of applications to the **Renewable Energy Fund (REF) Grant program**. A copy of the request for applications (RFA), stating the application requirements to the program are available on AEA's Grid Resilience website.

All applications will require review and approval by both AEA and the US DOE prior to sub-award issuance.

Anticipated Sub-Award Schedule

Estimated timeline for AEA's **competitive solicitation** process for issuance of sub-awards:

- **AEA sub-award application period:** Jun 2, 2025 - Aug 4, 2025
- **AEA review of sub-award applications:** Aug 5, 2025 – Aug 26, 2025
- **US DOE review of sub-award applications** Aug 29, 2025 - Nov 27, 2025
- **AEA issuance of sub-awards** Dec 1, 2025 - Jan 5, 2026

Sub-Grantee Requirements

- Reporting, tracking, and segregation of incurred costs;
- Reporting on job creation and preservation;
- Publication of information on the Internet;
- Access to records by Inspector's General and the Government Accountability Office;
- Requiring all iron, steel, manufactured goods, and construction materials are produced in the U.S.;
- Ensuring laborers and mechanics are paid wages equivalent to prevailing wages (Davis-Bacon Act);
- Protecting whistleblowers; and
- Certification and Registration.

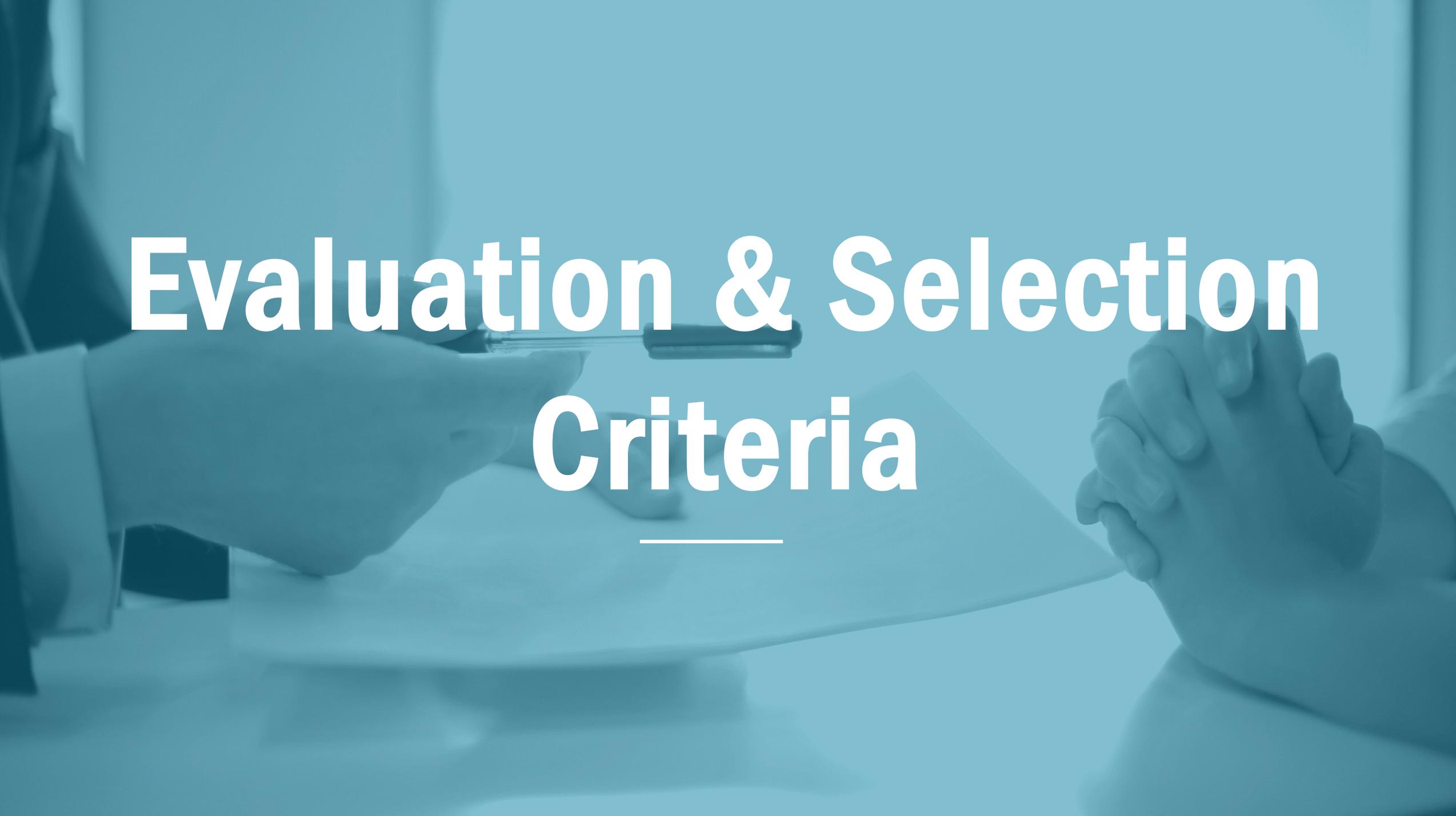
Sub-Grantee Reporting Requirements



DOE estimated **period of performance** of 5 years, with extensions possible up to 10 years subject to DOE approval.

In addition to expenses, certified payrolls, and U.S. iron, steel, manufactured goods, and construction materials, etc., sub-grantees will be required to submit **quarterly progress reports** to AEA on:

- Project schedule updates
- Performance metrics



Evaluation & Selection Criteria

Criteria Overview & Weighting



Top priority will be given to resilience projects based on:

Criteria	Weight
Population Impacted	30%
Risk Reduction / Resilience Effectiveness	20%
Extreme Weather Adaptation	15%
Data Sources	5%
Implementation Measures Community	15%
Engagement	5%
Leveraging Partnerships	10%

Population Impacted | 30%

Population Impacted



1. The total population served by the proposed project.

Risk Reduction / Resilience Effectiveness | 20%

Risk Reduction / Resilience Effectiveness



1. How the project will reduce the current risk of disruptive events (an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to capacity constraints, redundancy and/or an equipment failure, etc.)

Extreme Weather Event Adaptation | 15%

Extreme Weather Event Adaptation



1. Description of the frequency and severity of extreme weather, wildfire, or natural disaster in the provider service area and how the project would mitigate the future risk of disruptive events whereby operations or the electric grid are disrupted, preventatively shut off, or cannot operate safely due to extreme weather, wildfire, or natural disaster. Projects which improve or enhance the resilience of transmission lines or assets of 69kV and above shall be allocated bonus points.

Data Sources | 5%

Community Engagement



1. The project is documented in a data-driven planning document and/or has been identified as a provider priority via a board priority/resolution related to system resiliency

Implementation Measures | 15%

Implementation Measures



1. Project schedule that includes design, permits, site control, and construction timeframe breakouts. Project schedule indicating whether the project will go to construction within the desired 5-year period of performance. Project schedule should include adequate and reasonable proposed timeframes including project staff experience and availability of staff time during the proposed project period.
2. Extent to which an eligible entity plans to utilize project labor agreements, local hire agreements, and/or has or will develop a plan to attract, train, and retain a local workforce.

Community Engagement | 5%

Community Engagement



1. The outreach strategy and supporting activities are appropriate to the project and community.

Leveraging Partnerships | 10%

Leveraging Partnerships



1. Letters of support from partner organizations, not including boards, committees, or wholly-owned subsidiaries of the project-applicant.
2. Percent of eligible entity matching funds (in-kind and/or cash contributions). Description of how the applicant will provide required matching funds (e.g., in-kind and/or cash contributions) that are equal to 1/3 or more of the federal share of the project cost.



AEA provides
energy solutions
to meet the
unique needs of
Alaska's rural
and urban
communities.

Alaska Energy Authority

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