

Nebraska Grid Resiliency Grant Program

Power Summit
October 5th, 2023

Agenda

Federal Program Overview

State Objectives and Priorities

Next Steps and Timeline

Questions and Discussion

40101(d) Program Overview

The Nebraska Department of Environment and Energy (NDEE) has been designated as the sole entity within the State of Nebraska to apply for, receive, and administer funds awarded through Section 40101(d) of the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL).

40101(d) Program Overview

The objective of this program is to provide funding to States and Tribes to improve the reliability and resilience of the electric grid against disruptive events.



A disruptive event is “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.”

Preventing Outages, Enhancing Grid Resilience

- Hardening of physical assets
- Deployment of sophisticated capabilities, such as real-time control and coordination of assets, including Distributed Energy Resources and microgrids to provide quick services under emergency situations
- Tools for supporting modeling and resilience analysis efforts

Eligible Entities for Subawards

Electric Grid
Operators

Electricity
Storage
Operators

Electricity
Generators

Transmission
Owner or
Operators

Distribution
Providers

Fuel
Suppliers



Eligible Activities

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 or the reconductoring of power lines with low-sag, advanced conductors

Vegetation and fuel-load management

Microgrids and battery-storage subcomponents*

Adaptive protection technologies

Advanced modeling technologies

Hardening of power lines, facilities, substations, of other systems

Replacement of old overhead conductors and underground cables

Ineligible Activities

Resilience measures that are not allowed under Section 40101(d) include:

1. Construction of a new –
 - a) electric generating facility; or
 - b) large-scale battery-storage facility that is not used for enhancing system adaptive capacity during disruptive events; or
2. Cybersecurity.

Estimated Period of Performance

- DOE anticipates making awards initially with an estimated period of performance of 5 years.
- Awards may be extended to span the amount of time necessary for Recipients to complete all subaward project efforts, up to 10 years.



Funding

Funding for both Year 1 and Year 2 is available for new awards. Funds will be distributed on formula basis in accordance with the formula allocations posted at Section 40101(d) Formula Grants to States & Indian Tribes.

Nebraska's Allocation Year 1	\$5,440,249
Nebraska's Allocation Year 2	\$5,421,647
Nebraska's Allocation Years 3-5	TBD

*NDEE not to receive more than 5% for administrative costs

Cost Match Requirements 40101(d)(8)

Each State and Indian Tribe is required to match 15 percent of the amount of each grant.

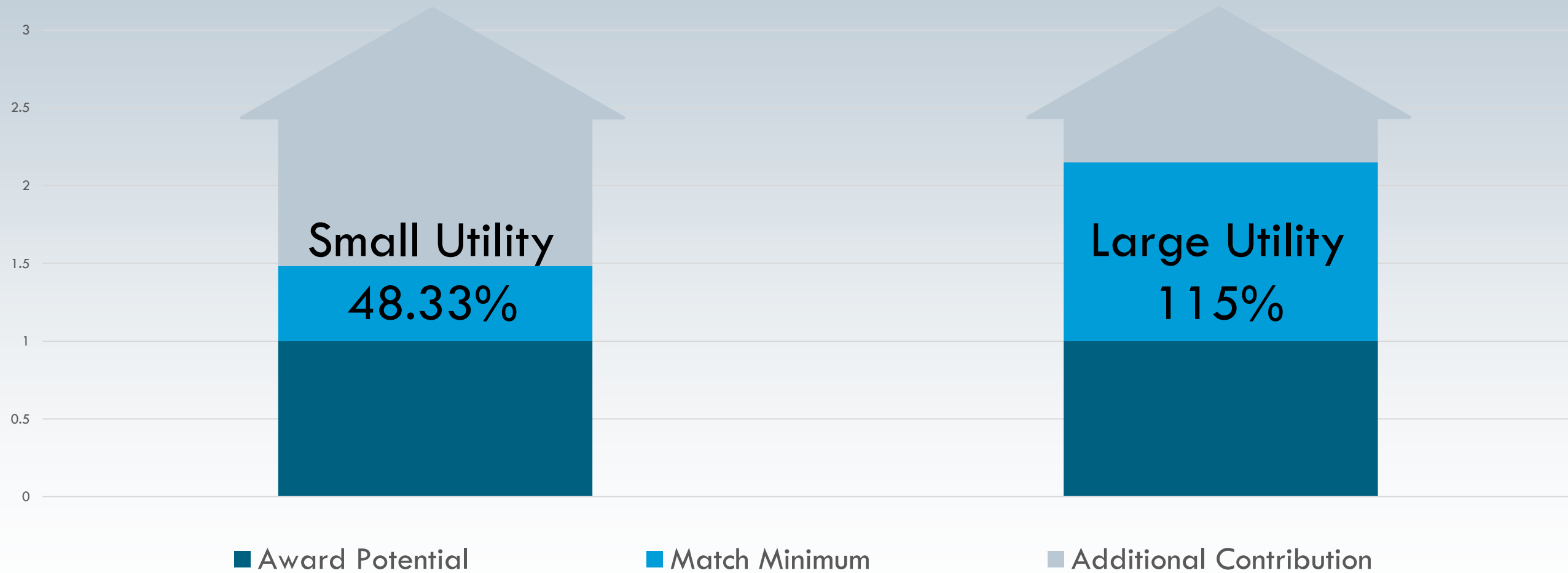
NDEE intends to pass the 15% Cost Match to requirement to sub awardees.

Further, an eligible entity that receives a subaward under this program is required to match 100 percent of the amount of the subaward as required by Section 40101(h). However, if the eligible entity sells not more than 4,000,000 megawatt hours of electricity per year, the required match will be one-third of the amount of the subaward as required by Section 40101(h).

Cost Matching

- Large Utilities (more than 4 million MWh per year in sales)
100% + 15% = 115%
- Small Utilities (4 million or less MWh per year in sales)
33.33% + 15% = 48.33%

Minimum Cost Match



Eligible Entity Prioritization – 40101(d)(5)

In making grants to eligible entities using funds made available to the applicable State or Indian Tribe under the program, the State or Indian Tribe shall give priority to projects that, in the determination of the State or Indian Tribe, will generate the greatest community benefit (whether rural or urban) in reducing the likelihood and consequences of disruptive events.

Small Utilities Set Aside – 40101(d)(6)

A State or Indian Tribe receiving a grant under the program shall ensure that, of the amounts made available to eligible entities, the percentage made available to eligible entities that sell not more than 4,000,000 megawatt hours of electricity per year is not less than the percentage of all customers in the State or Indian Tribe that are served by those eligible entities.

BIL Specific Requirements

Environmental
Review in
Accordance with
National
Environmental
Policy Act (NEPA)

Flood Resilience

Affirmative Action
and Pay
Transparency
Requirements

Prohibition Related
to Foreign
Government-
Sponsored Talent
Recruitment
Programs

Buy America Requirements for Infrastructure Projects

For this program specifically, all projects are considered “infrastructure” within the Buy America provision of BIL, based on implementation guidance from the Office of Management and Budget (OMB) Memorandum M-22-11 issued on April 18, 2022.

- All iron, steel, and manufactured products used in the infrastructure work are produced in the United States; and
- All construction materials used in the infrastructure work are manufactured in the United States.

Davis-Bacon Act Requirements

Projects awarded under this program will be funded under the “Davis-Bacon Act” (DBA).

All laborers and mechanics employed by the applicant, subrecipients, contractors or subcontractors in the performance of construction, alteration, or repair work funded in whole or in part under this program shall be paid wages at rates not less than those prevailing on similar projects in the locality.

State Narrative Requirements

Narrative to include:

- Objectives and associated Metrics
- A description of the criteria, methods, and intended outcomes benefiting the public that will be used by the State to award grants to eligible entities,
- Evidence of a notice and public hearing
- A description of the proposed funding distributions

State Objectives for Year 1 and 2

1) Rebuild and Restore

- Upgrading existing power poles by restoring, strengthening, or replacing current power poles.
- Rebuilding aged transmission and distribution lines and undergrounding of electrical equipment and powerlines.
- Upgrading substations with new equipment that may reduce the risk of electrical outages while meeting the current and future needs of changing communities.

State Objectives for Year 1 and 2, cont.

1) Rebuild and Restore Sample Metrics

Number of poles upgraded (with different materials)

Number of transformers hardened

Miles of power lines reconductored or undergrounded

Number of substations hardened

T&D Losses (%)

Reduced # of equipment failures

Average restoration time

Reduced number of power quality incidences

Reliability Indices (SAIDI, SAIFI, CAIFI)

State Objectives for Year 1 and 2, cont.

2) Protect from Weather Related Events

- Weatherizing electric generation equipment and utilization of freeze protection methods and technologies.
- Hardening of electric system components to help withstand extreme heat, cold, and severe storms.
- Managing vegetation to protect power lines.

State Objectives for Year 1 and 2, cont.

2) Protect from Weather Related Events Sample Metrics

Reduced number of equipment failures

Miles of vegetation management

Outages exceeding a threshold

Number of substations hardened

State Objectives for Year 1 and 2, cont.

3) Adaptive Protection Technology

- Acquiring Adaptive Protection Technology-Smart Grid. Real-time monitoring of electrical parameters and condition of critical components enables the system to adjust to an optimal state. This could be critical to respond to rapidly changing system conditions due to generation and transmission outages and weather changes.

State Objectives for Year 1 and 2, cont.

3) Adaptive Protection Technology Sample Metrics

Number of power quality monitors installed

Number of transformer on-line dissolved gas monitors

Number of PMUs installed

Number of smart meters installed

Number of automated distribution feeder upgrades

Number of fault detectors

Number of fault current limiters

Number of advanced switches installed

State Objectives for Year 1 and 2, cont.

4) Recruitment and Retention of Workforce

- Creating apprenticeships and jobs.
- Offering continued training to acquire and maintain qualified electric energy technology workers.

State Objectives for Year 1 and 2, cont.

4) Recruitment and Retention of Workforce Sample Metrics

Energy sector jobs created

Number of training programs funded

Number of individual who complete a training that are placed in full-time jobs

State Objectives for Year 1 and 2, cont.

5) Economic and Environmental Benefit to Disadvantaged Communities

- Completing grid improvement projects that reduce the number and duration of power outages in communities with lower median income, aged and disabled populations.

State Objectives for Year 1 and 2, cont.

5) Economic and Environmental Benefit to Disadvantaged Communities

Sample Metrics

Dollars saved by DAC households in energy expenditures due to technology adoption in DACs

Energy saved [MMBTU or MWh] or reduction in fuel [GGe] by DAC households

Avoided air pollutants (CO₂ equivalents, NO_x, SO₂, and/or PM_{2.5}) in DACs

Criteria

- Priority will be given to projects that demonstrate the greatest community benefit.
- Other criteria include reasonableness of budget project schedule, and demonstrative need for financial assistance.
- Special consideration may be given to projects in disadvantaged communities and to projects that add energy technology jobs and training.
- NDEE is committed to funding projects that benefit both rural and urban communities.

Preliminary Funding Distribution

- Limit of one proposal per applicant per funding solicitation
- Entities that received an award can receive additional funding in future funding cycles.
- Maximum project funding amount: \$2 million

Next Steps

- NDEE will finalize program requirements and establish a timeline for accepting, reviewing, and awarding subgrantee applications
- DOE review and approval of NDEE application and narrative
- NDEE will open program up for applications



Questions and Discussion

Correspondence can be sent to Nebraska Department of Environment and Energy, PO Box 98922, Lincoln, Nebraska 68509-8922, or email: NDEE.gridresiliency@nebraska.gov.