

Grid Resiliency Grant Program Summary

Nebraska’s Grid Resiliency Grant Program, funded by the Infrastructure Investment and Jobs Act, to award grants to eligible entities to prevent outages and enhance resiliency of the electric grid.

NDEE plans to support grid improvement projects that result in a more resilient electrical grid and promote a clean and equitable energy economy. Eligible projects will rebuild and restore energy infrastructure for transmission and distribution, protect existing equipment from weather-related events, support new adaptive protection technology, and provide recruitment and retention of energy technology workers.

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| <ul style="list-style-type: none"> • Project must be completed in 5 years • Current Funds Available: \$10.86 million • Maximum Award Amount: \$2.0 million • 55% of Funding will be set aside for small utilities | <p>Cost Matching Requirements</p> <ul style="list-style-type: none"> • Large Utilities (more than 4 million MWh per year in sales) = 115% • Small Utilities (4 million or less MWh per year in sales) = 48.33% | <p>Eligible Applicants:</p> <ul style="list-style-type: none"> ⇒ Electric Grid Operators ⇒ Electricity Storage Operators ⇒ Electricity Generators ⇒ Transmission Owners and Operators ⇒ Distribution Providers ⇒ Fuel Suppliers |
| | <p>Ineligible Activities</p> <ol style="list-style-type: none"> 1. Construction of a new - <ol style="list-style-type: none"> 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. | |

Funding must be distributed equitably to Nebraskans, including underserved communities that are more susceptible or vulnerable to electric power outages. Priority will be given to projects that demonstrate the greatest community benefit. Special consideration will be given to projects in areas of greater energy burden and historically underserved communities.

Pre-proposals — Due January 31, 2024

Eligible entities are strongly encouraged to submit pre-proposals which provide NDEE with a general outline of each project using a two-page preliminary proposal checklist to be submitted to NDEE.GRIDRESILIENCY@NEBRASKA.GOV.

NDEE will assess pre-proposals for eligibility and alignment with program objectives. Prospective grantees may submit multiple pre-proposals at this time, one for each project. However, during the application period grantees will be limited to one comprehensive application submission that focuses on funding for a single project.

More info:
NDEE.gridresiliency@nebraska.gov
<http://dee.ne.gov/NDEQProg.nsf/OnWeb/POEREG>

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Eligible Project Categories (Objectives)

1. Rebuild and Restore– provides funding for projects to restore, strengthen, and/or replace existing equipment and substations. This includes upgrading or replacing existing power poles; rebuilding or upgrading transmission and distribution lines; undergrounding of electrical equipment and powerlines; and upgrades to substations with new equipment that may reduce the risk of electrical outages while meeting the current and future needs of changing communities.

Acceptable Metric - Rebuild and Restore

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Number of poles upgraded | Average restoration time |
| Number of transformers hardened | Reduced number of power quality incidences |
| Number of substations hardened | Miles of power lines reconducted or undergrounded |
| Reduction of transmission and distribution losses | Reduced number of equipment failures |
| Reliability indices (e.g., System Average Interruption Duration Index-SAIDI, System Average Interruption Frequency Index-SAIFI, Customer Average Interruption Frequency Index-CAIFI) | |

2. Protect from Weather Related Events- provides funding for projects that would harden the electric system components to help withstand extreme heat, cold, and severe storms, along with vegetation management. This includes weatherizing electric generation equipment and utilization of freeze protection methods and technologies.

Acceptable Metrics - Protection from Weather Related Events

| | |
|-------------------------------------------------|----------------------------------------------------------------------------------|
| Number of generators protected | Miles of vegetation management |
| Number of substations hardened | Reduced number of equipment failures |
| Number of electrical system components hardened | Number of outages exceeding a utility's threshold for recovery time or incidence |

3. Adaptive Protection Technology- provides funding for projects acquiring adaptive protection technology. These types of projects would utilize real-time monitoring of electrical parameters and the condition of critical components that would enable 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.

Acceptable Metrics - Adaptive Protection Technology

| | |
|--------------------------------------------------|-----------------------------------------------------|
| Number of power quality monitors | Load Factor |
| Number of smart meters installed | Number of fault current limiters installed |
| Number of fault detectors installed | Reduced number of power quality incidences |
| Number of advanced switches installed | Reliability indices (e.g., SAIDI, SAIFI, CAIFI) |
| Number of transformer on-line gas monitors | Number of Phasor Measurement Units (PMUs) installed |
| Number of automated distribution feeder upgraded | |

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Eligible Project Categories (Objectives), cont.

4. Recruitment and Retention of Workforce- provides funding for projects that support the creation of apprenticeships, good-paying jobs, and continued training opportunities to acquire and maintain qualified electric energy technology workers.

Acceptable Metrics - Recruitment and Retention of Workers

| | |
|-------------------------------------------------|---------------------------------------|
| Number of energy sector jobs created | Number of training programs supported |
| Increase in number of credentials for workforce | Number of apprenticeships created |

5. Economic and Environmental Benefit to Disadvantaged Communities- ensure that benefits from projects funded are distributed equitably to Nebraskans, including underserved communities that are more susceptible or vulnerable to electric power outages.

Acceptable Metrics - Economic and Environmental Benefit to DACs

| | |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Estimated average decrease in annual electric energy costs in underserved households. | Energy saved [MMBTU or MWh] or reduction in fuel by underserved households |
| Avoided air pollutants (CO2 equivalents, NOx, SO2, and/or PM2.5) in underserved communities | Estimated population in underserved communities benefited |

Timeline (Subject to Change)

| | |
|--------------------------------|-------------------|
| Pre-proposals Due to NDEE | January 31, 2024 |
| NDEE Comments on Pre-proposals | February 16, 2024 |
| Application Period Opens | March/April 2024 |
| Selected proposals sent to DOE | June/July 2024 |
| Awards Announced (Anticipated) | Fall 2024 |

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Full Proposals

A form for creating full proposals will be distributed and available on the NDEE website, and notice will be sent when it is available.

<http://dee.ne.gov/NDEQProg.nsf/OnWeb/POEREG>

Additional Information

<https://netl.doe.gov/bilhub/grid-resilience/formula-grants>

<https://www.energy.gov/gdo/preventing-outages-and-enhancing-resilience-electric-grid-grants>

Questions can be directed to ndee.gridresiliency@nebraska.gov



December 2023

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