

Proposed South Carolina Grid Resilience Grant Program

BIL 40101(d) Formula Grant
Public Hearing | November 7, 2022



TODAY is about...

1. Sharing our proposed approach for South Carolina's Application for Bipartisan Infrastructure Law 40101(d) Formula Grant
2. Getting your input to the proposed objectives, criteria, and metrics

Agenda

- Introductions
- Bipartisan Infrastructure Law 40101(d) Overview
- Proposed Grid Resilience Grant Program
 - Strategic Approach
 - Implementation
- Open Floor
- Next Steps

Infrastructure Investment and Jobs Act (IIJA), Pub. L. No. 117-58 (Nov. 15, 2021), Sec. 40101(d) (codified at 42 U.S.C. 18711(d)), available at <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>.

Presenting



Vicky Budreau

**Sr. Director, Wholesale
& Industrial Customer
Service**



Greg Edwards

**Associate
General Counsel**



Chris Wagner

**Director, Transmission
Planning, Research &
Development**



Stewart Ramsay

**Facilitator
Vanry Associates**

Guidance for participation

Meeting video, audio and written comments/questions will be recorded and shared publicly following the meeting

Zoom Platform Functionality - why this format?

1. Use the **Q&A** for comments or questions during the presentation – we have a team of people to answer your questions
2. We will open the floor throughout the meeting – use the **Raise Hand** if you would like the chance to speak, we will unmute you and welcome you to turn on your video if you are able and inclined to do so
3. Throughout we will use the **Polling** feature to get your feedback on some questions we have
4. We will ask for your final thoughts and meeting input in an **Exit Survey**

IIJA Section 40101(d)

BIPARTISAN INFRASTRUCTURE LAW OVERVIEW

Significant value in having customers more resilient to severe weather events

- Safety
 - Continued provisions of essential services (electricity, water, sewer)
 - Access to food, fuel
 - Access to medical facilities
- Economic
 - Reduced damage to property
 - Reduced risk of lost income
 - Mitigation to increases in costs of essential services & insurance
- Federal and State Governments focused on making the grid more resilient
 - Bipartisan Infrastructure Law provides \$5 Billion for electric grid resiliency
 - Approximately 50% of that for States, Territories, and Tribes to harden the grid nationwide

Grid Resilience Initiative

Formula Grants Summary

- States, Territories, & Tribes
 - \$2.3B allocated for 40101(d) (approx. \$459M/year, FY 2022-2026)
 - Year 1, at least **\$5.2M** for South Carolina
 - 15% match by Santee Cooper on behalf of South Carolina
 - Up to 5% for Technical Assistance
- Legislation set five-part formula
 - based on population, area, probability of disruptive events, severity of disruptive events & expenditure on mitigation efforts
- States, Territories & Tribes need to submit to DOE for approval
 - May grant subawards to eligible entities for projects

BIL : DOE GOALS

- 1) Improve energy resilience to all hazards in U.S. & mitigate climate-related risk
- 2) Invest in modernized grid infrastructure & extend customer access to lower-cost energy
- 3) Invest in clean energy and decarbonization (2035/2050)
- 4) Create good-paying jobs with free & fair choice to join a represented workforce

40101(d) Program Narrative Guidance



Improve resilience of the electric grid against disruptive events*

SUB-GRANTS MAY SUPPORT A WIDE RANGE OF INVESTMENTS

- weatherization technologies & equipment
- fire-resistant technologies & fire prevention systems
- monitoring & control technologies
- undergrounding of electrical equipment
- utility pole management
- relocation of power lines or reconductoring of power lines with low-sag, advanced conductors
- vegetation & fuel-load management
- use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events
 - microgrids, &
 - battery-storage subcomponents
- adaptive protection technologies
- advanced modeling technologies
- hardening of power lines, facilities, substations & other systems
- replacement of old overhead conductors & underground cables

INELIGIBLE PROJECT TYPES

- Construction of new generating facility or large-scale battery-storage facility
- Cybersecurity

LIMITATION

~~Amount to be no greater than the total amount spent three years prior on efforts to reduce the likelihood and consequences of disruptive events~~ After Public Hearing, DOE confirmed that this limitation does not apply to 40101(d) grants.

*Per BIL section 40101(a)(1), 14

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.”

40101(d) Program Narrative Guidance

Eligible entities for subawards

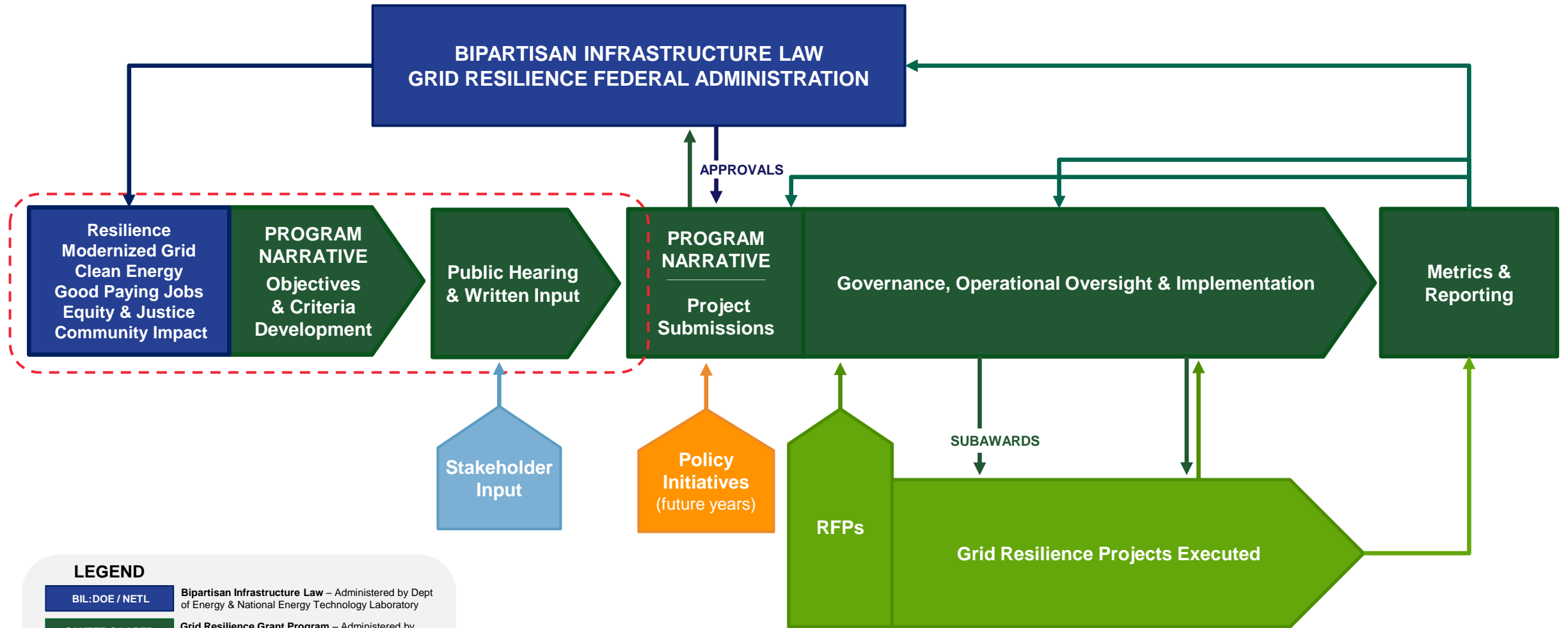
- Electric grid operators
- Electricity storage operators
- Electricity generator
- Transmission owners or operators
- Distribution providers
- Fuel suppliers
- Other relevant entities as determined by the Secretary

An eligible entity that receives a subaward under this program is required to match 100% of subaward amount.

For a small entity (not more than 4,000,000 MWh sales per year), the required match will be one-third of the subaward amount.

Proposed Grid Resilience Grant Program 40101(d)

STRATEGIC APPROACH





LEGEND

- BIL:DOE / NETL** Bipartisan Infrastructure Law – Administered by Dept of Energy & National Energy Technology Laboratory
- SANTEE COOPER** Grid Resilience Grant Program – Administered by Santee Cooper on behalf of the South Carolina
- ELIGIBLE ENTITIES** Grid Resilience Subaward Project(s) – Eligible entities who have proposed & received subawards
- POLICY ENTITIES** State & Other Bodies with interests and initiatives related to Grid Resilience
- STAKEHOLDERS** Eligible Entities and all other Interested Parties
- Current State** – Year one GRG Program launch and submission underway

Proposed GRG Program Objectives

Make meaningful progress in one or more of the following

BIL: DOE GOALS

- a) Demonstrate measurable improvements in energy resilience for the South Carolina grid & mitigate climate-related risk
- b) Invest in modernized grid infrastructure that enables
 - consumer access to lower-cost energy and increased electrification
 - increased variable renewable electricity and distributed energy sources
 - other evolving system needs
- c) Invest in clean energy & decarbonization solutions
 -  → 2035 100% clean electricity
 -  → 2050 net-zero greenhouse gas emissions
- d) Create good-paying jobs
 - free and fair choice to be part of a represented workforce as specified in BIL

FEDERAL ADMINISTRATION GOALS

- e) Adhere to & further the principles of equity & justice



- f) Show a clear, positive impact on underserved communities or disadvantaged populations

Proposed GRG Project Objectives

Objective #1 – Increased Monitoring & Control Capabilities

PROPOSED OBJECTIVE STATEMENT

Increased monitoring and control capabilities to provide visualization and enhance situational awareness leading up to, during, and post-extreme weather events

ANTICIPATED PROJECT TYPES

Installations such as

- Expansion of Distribution Automation or Distribution Management Systems
- Equipment for remote facility operation
- Line monitoring equipment
- Remote controlled sectionalizing devices

DRAFT METRICS

- Increased number of:
 - Monitored facilities
 - Facilities under centralized control
 - Automated line miles
 - Customers benefiting from increased automation -- *broken out by customers in disadvantaged/ underserved communities*
- Improved situational awareness / visualization for operators

Proposed GRG Project Objectives

Objective #2 – Harden or Adapt Electric System

PROPOSED OBJECTIVE STATEMENT

Harden or adapt the electric system to increase resiliency during extreme weather events

ANTICIPATED PROJECT TYPES

- Overhead to underground conversion
- Upgrades of overhead facilities, such as lines and substations
- Construction of redundant paths

DRAFT METRICS

- Avoiding or reducing consequences to:
 - Key electric infrastructure – *reductions in outage events & permanent facility damage*
 - Disadvantaged communities – expected reductions in SAIDI & CAIDI
 - Priority customers – *reduction in # / duration of outages, impacts, emphasis on disadvantaged communities*
 - Key geographic areas – *avoiding wage loss & production due to disruptions*
- Reduction in average electric infrastructure age
- Increase in % of underground line miles vs total
- Reduction in # of radial line miles

Proposed GRG Project Objectives

Objective #3 – Enhance Vegetation / Minimize Risk

PROPOSED OBJECTIVE STATEMENT

Enhance vegetation management programs to reduce exposure to tree-related damage to the electric system during extreme weather events or wildfires

ANTICIPATED PROJECT TYPES

- Advanced technology(ies) to improve vegetation practices (AI, satellite analytics, modeling)
- Reclassification & removal of danger trees
- Analytics-based adjustments to tree trimming activities to reduce vegetation risks
- Reconfiguration or relocation of lines

DRAFT METRICS

- Refined & optimized vegetation management
- # miles cleared / # danger trees removed
- Reduction in # exposed miles / customers
- Reductions in # of predicted vegetation-related outages during extreme weather events

Proposed GRG Project Objectives

Objective #4 – Develop Energy Storage or Microgrids

PROPOSED OBJECTIVE STATEMENT

Develop energy storage & microgrids to provide system adaptive capacity to increase resilience for communities and customers – *e.g., systems able to provide electrical energy during disruptions*

ANTICIPATED PROJECT TYPES

- Development of a microgrid(s)
- Installation of battery storage at substations to serve load
- Installation of distributed battery storage at critical facilities or customer locations to power the site

DRAFT METRICS

- Number of
 - MWh of resilient energy supply
 - Resilient customers due to installation
 - Residents benefitting from resilient public facilities – *hospitals, fire, police, shelters*
 - More resilient community / essential locations – *community centers, long-term care facilities*
 - Underserved residents benefitting from resilient supply

Thoughts & Questions?

Proposed Grid Resilience Grant Program 40101(d)

IMPLEMENTATION

Proposed Program Criteria

- Greatest community benefit
- Small Utility Set Aside – 35.7% of total funding

Utility	Small Entity	Number of Customers	% of Total
Large IOUs	No	1,568,860	57.1%
Santee Cooper	No	198,722	7.2%
Small IOU (Lockhart Power)	Yes	6,195	0.2%
Cooperatives	Yes	852,728	31.0%
Municipal Systems	Yes	120,792	4.4%
Total		2,747,297	100%

- State focused projects
- Prioritize projects that deliver the greatest impact per dollar

Proposed Program Methods

- Dedicated Program & project management
- Utilize the 5% allowed for administration & technical assistance
- Create set of sustainable, repeatable & adaptive processes
- Provide arms-length governance, recognizing Santee Cooper may be an applicant

Goal is to maximize the value each year to the State

Phase One – Planning & Preparation

TASK 1.0

PROGRAM MANAGEMENT & ADMINISTRATION

- Establish Program management team, office & governance framework
- Includes: defining roles & responsibilities, overall schedule, RFP elements, as well as receiving and evaluating proposals and community support

TASK 2.0

TECHNICAL ASSISTANCE & PLANNING

- Submit Program Narrative & SOPO
- Assure Program & grant projects conform to all aspects in the execution

TASK 3.0

RESILIENCE PROJECT APPROVALS

- Prepare & submit Project Packages
- Review Proposed Subawards with DOE
- Upon approval, make subawards

Phase Two – Implementation

TASK 4.0

RESILIENCE PROJECT EXECUTION

- Upon DOE’s written determination – issue subawards to eligible entities to execute projects per 2CFR200, for each project
 - A. Monitor performance against Terms & Conditions
 - B. Ensure evidence of measurable progress
 - C. Verify extent to which established objectives are being realized

- DOE Reporting
- Briefings & Technical Presentations

Task	Deliverable	Delivery Date
1	Project Management Plan (PMP)	<ul style="list-style-type: none"> • Within 45 days after start of budget period one • Within 90 days prior to start of the subsequent budget period • Revised PMPs within grant years submitted as a result of major project plan changes, if any
2	Program Narrative	Program Narratives will be submitted within 90 days prior to start of the subsequent budget periods.
3	Resilience Project Package(s)	Submitted prior to the execution of resilience projects and/or issuance of subawards for resilience projects
4	Subaward Monitoring Reports	Submitted quarterly with QPR



Proposed Grid Resilience Grant Program 40101(d)

OPEN FLOOR

In closing, what's next...

- Consider & incorporate today's input
- Accepting written input until **November 14, 2022**
Send to email: **gridresiliencegrant@santeecooper.com**
- Meeting summary, recording and Q&A reports to be posted at
SanteeCooper.com/GridResilienceGrant

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- Santee Cooper to update & finalize application
 - Target date to submit application: November 30, 2022

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- Watch for progress updates at **SanteeCooper.com/GridResilienceGrant**

Thank you!

We have a few more questions and would appreciate some feedback on the meeting.

**Please complete our survey
that will appear in your browser as you leave the meeting**