



# DE-FOA-0002740 Grid Resilience and Innovation Partnerships (GRIP) Program

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November 29, 2022



## Webinar Notice

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## Q&A Session To Follow

- ▶ There will be a portion dedicated to answering questions during Webinar
  - Please submit all questions during this webinar via the control panel.
  - DOE will answer as many questions as time permits. If a question response requires a more detailed response or additional input, the response will be posted on FedConnect. Questions and answers from this presentation will be posted on FedConnect.
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# Grid Resilience and Innovation Partnerships (GRIP)

## Program Overview

- ▶ These programs will be released as one funding opportunity but provide opportunities for various applications to various entities including states, tribes, utilities, and industry.
  - Topic Area 1- Grid Resilience Grants (Competitive)
  - Topic Area 2- Smart Grid Grants (Competitive)
  - Topic Area 3- Grid Innovation Program (Competitive)
- ▶ DOE Goals for the GRIP Program
  - Transform community, regional, interregional, and national resilience, including in consideration of future shifts in generation and load
  - Catalyze and leverage private sector and non-federal public capital for impactful technology and infrastructure deployment
  - Advance community benefits
- ▶ Concept papers are a required first step in the application process and due by:
  - Grid Resilience Grants- December 16, 2022
  - Smart Grid Grants- December 16, 2022
  - Grid Innovation Program- January 13, 2023



## Grid Resilience Funding Available through BIL

Topic Area	GRIP Program	Total Funding Amount(FY 22-26)	Approximate Total Federal Funding For All Awards- 1 <sup>st</sup> Issue of FOA 2740	BIL Provision and Purpose
1	<b>Grid Resilience Grants (Utility and Industry)</b>	\$2.5 billion	\$918 million	Preventing Outages and Enhancing the Resilience of the Electric Grid / Hazard Hardening (Sec. 40101(c))
2	<b>Smart Grid Grants</b>	\$3 billion	\$1.08 billion	Deployment of Technologies to Enhance Grid Flexibility (Sec. 40107)
3	<b>Grid Innovation Program</b>	\$5 billion	\$1.82 billion	Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency (Sec. 40103(b))
	<b>TOTAL</b>	\$10.5 billion	\$3.82 billion	



## Application Submission Timing / Info

FOA Released: November 18, 2022					
Topic Area 1 Grid Resilience Grants (40101c)		Topic Area 2 Smart Grid Grants (40107)		Topic Area 3 Grid Innovation Program (40103b)	
Concept Papers Due	December 16, 2022	Concept Papers Due	December 16, 2022	Concept Papers Due	January 13, 2023
Response to Concept Papers	February 2023	Response to Concept Papers	February 2023	Response to Concept Papers	March 2023
Full Applications Due	April 6, 2023	Full Applications Due	March 17, 2023	Full Applications Due	May 19, 2023

**An entity may submit more than one Concept Paper and Full Application to this FOA, provided that each application describes a unique, scientifically distinct project and provided that an eligible Concept Paper was submitted for each Full Application.**



# Concept Papers

## Submission Requirements

- ▶ Email all required documents to [FOA2740@netl.doe.gov](mailto:FOA2740@netl.doe.gov) by the deadline identified in the FOA.
- ▶ Applicants are strongly encouraged to submit their Concept Papers and Full Applications at least 48 hours in advance of the submission deadline.

## Content and Form\*:

Section	Maximum Page Number	Description
Cover Page	1	Project title, location, POC, topic area, etc.
Project/Technology Description	12	Technical approach, eligibility, resilience benefits, readiness, viability, timing, etc.
Community Benefits Plan	5	Community/labor approach, DEIA, J40, etc.
Addendum A	5	Qualifications and expertise of project team
Addendum B	N/A	For Topic Area 1, small utility EIA Form 861

**\*Please also see Section IV.C of the FOA for further information on Concept Papers.**



# 1. Grid Resilience Grants (Utility and Industry)

**\$2.5B Total (FY 22-26)**  
**FY22 and 23: Up to \$918 Million**

- ▶ Eligible Entities Include\*:
  - Electric grid operators
  - Electric storage operators
  - Electricity generators
  - Transmission owners or operators
  - Distribution providers
  - Fuel suppliers
- ▶ Capped at the amount the eligible entity has spent last 3 years of resilience investments or \$100 million, whichever is lower.
- ▶ Small Utility Set Aside (for those selling no more than 4 million MWh of electricity per year)
  - Must match 1/3 of grant amounts received
  - At least 30% must go to small utilities
- ▶ Cost Share: 100% (except for small utilities that must match 1/3 of grant amount)\*\*

**\*Please also see Section III.A of the FOA for Eligibility Information.**

**\*\*Please also see Section III.B of the FOA for Cost Sharing Requirements.**





# Resilience investments allowed under Competitive Grant\*

## Broad range of activities, technologies, equipment and hardening measures:

- ▶ Utility pole management
- ▶ Hardening of power lines, facilities, substations, of other systems
- ▶ Undergrounding of electrical equipment
- ▶ Replacement of old overhead conductors and underground cables
- ▶ Relocation of power lines or reconductoring of power lines with low-sag, advanced conductors
- ▶ Vegetation and fuel-load management
- ▶ Weatherization technologies and equipment
- ▶ Fire-resistant technologies and fire prevention systems
- ▶ Monitoring and control technologies
- ▶ Use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events, including microgrids, and battery-storage subcomponents
- ▶ Adaptive protection technologies
- ▶ Advanced modeling technologies

Resilience measures that are **NOT** allowed under this provision include:

Construction of a new - electric generating facility; or large-scale battery-storage facility that is not used for enhancing system adaptive capacity during disruptive events; or cybersecurity.

\*Please also see Section I.B. of the FOA for Eligible Investment Information.



# 1. Grid Resilience Grant Priority Investment Areas\*

- ▶ **In the selection process, DOE will prioritize applications that address community transformation or the ability to leverage capital investments.**
  - DOE is particularly interested in applications for adaptive storage deployment, microgrid deployment, and the undergrounding of existing distribution and transmission lines – in addition to other eligible projects and solutions that provide significant benefit.
- ▶ **Activities that reduce the likelihood and consequence of impacts to the grid from extreme weather and other natural disasters**
  - Broad range of activities, technologies, equipment, and hardening measures eligible for funding
- ▶ **Transformational, comprehensive approach to mitigating one or more hazards across a region or within a community**
  - Concurrently, DOE encourages applicants to align proposed grid resilience and grid hardening investments with broader State, Tribal, or regional resilience or energy security plans.

Resilience measures that are **NOT** allowed under this provision include:

Construction of a new - electric generating facility; or large-scale battery-storage facility that is not used for enhancing system adaptive capacity during disruptive events; or cybersecurity.

\*Please also see Section I.B. of the FOA for Priority Investment Information.



## 2. Smart Grid Grants

**\$3B total (FY 22-26)**  
**FY22 and 23: Up to \$1,080 Million**

- ▶ Grants to support the deployment of technologies to enhance grid flexibility
- ▶ Eligible Entities Include\*:
  - Institutions of higher education
  - For-profit entities
  - Non-profit entities
  - State and local governmental entities, and tribal nations
- ▶ Cost Share: At least 50% of grant\*\*

### Goals & Objectives:

- ▶ Increase Transmission Capacity
  - Grid Enhancing Technologies
- ▶ Mitigate Wildfires
  - Asset Management Technologies
- ▶ Load Management/Electrification of “edge devices”
  - Managed Charging/Grid Infrastructure and autonomous control
- ▶ Incorporate Secure Communications/Cybersecurity

\*Please also see Section III.A of the FOA for Eligibility Information.

\*\*Please also see Section III.B of the FOA for Cost Sharing Requirements.



## 2. Smart Grid Grant Priority Investment Areas\*

- ▶ **Increasing transmission capacity and operational transfer capacity**
  - Grid enhancing technologies such as dynamic line rating, flow control devices, advanced conductors, and network topology optimization, to improve system efficiency and reliability.
- ▶ **Improving the visibility of the electrical system to grid operators**
  - Help quickly rebalance the electrical system with autonomous controls through data analytics, software, and sensors.
- ▶ **Enhance secure communication and data flow between distribution components:**
  - Investments in optical ground wire, dark fiber, operational fiber, and wireless broadband communications networks.
- ▶ **Aggregation and integration of distributed energy resources and other “grid-edge” devices to**
  - Provide system benefits, such as renewable energy resources, electric vehicle charging infrastructure, vehicle-to-grid technologies and capabilities, and smart building technologies.
- ▶ **Enhancing interoperability and data architecture of systems**
  - Support two-way flow of both electric power and localized analytics to provide information between electricity system operators and consumers.
- ▶ **Anticipate and mitigate the impacts of extreme weather or natural disaster on grid resiliency**
  - Investments to increase the ability to redirect or shut of power to minimize blackouts, prevent wildfires, and avoid further damage.

\*Please also see Section I.B. of the FOA for Priority Investment Information.



### 3. Grid Innovation Program

**\$5B Total (FY22–26)**  
**FY22 and 23: Up to \$1.8 Billion**

- ▶ Demonstrate innovative approaches to transmission, distribution, and storage to harden and enhance resilience and reliability; and
- ▶ Demonstrate new approaches to enhance regional grid resilience implemented through States by public and rural electric cooperative entities on a cost-shared basis.
- ▶ Eligible Entities Include\*
  - a State;
  - a combination of 2 or more States;
  - an Indian Tribe;
  - a unit of local government;
  - a public utility commission
- ▶ Cost Share: Minimum 50%\*\*

**\*Please also see Section III.A. of the FOA for Eligibility Information.**

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## 3. Grid Innovation Program (continued)\*

### **Primary Objectives:**

- ▶ Ensure reliable grid operations
- ▶ Improve overall grid resilience
- ▶ Enhance collaboration between and among eligible entities and private and public sector owners and operators on grid resilience
- ▶ Contribute to the decarbonization of the electricity and broader energy system
- ▶ Provide enhanced system value, improve current and future system cost-effectiveness and deliver economic benefits

### **Areas of Interest for Applications:**

- ▶ Transmission Systems (e.g. capacity enhancements and renewable energy interconnection)
- ▶ Distribution Systems (e.g. advanced distribution grid assets and functionality)
- ▶ Combined Systems (e.g. demonstration of innovative approaches for improved joint resilience and functionality across both T&D)

\*Please also see Section I.B. of the FOA for Priority Investment Information.



# Community Benefits Planning\*

- ▶ In the Concept Paper, Applicants must describe succinctly the approach to be taken in the Community Benefits Plan, to be further detailed in the Full Application.
  - **Community and Labor Engagement**
    - Engaging with labor unions, local governments, Tribal entities, and community-based stakeholders, especially in disadvantaged communities.
  - **Investing in the American workforce**
    - Creating and retaining high quality, good-paying jobs with employer-sponsored benefits and the ability to organize and bargain collectively for all phases of work.
  - **DEIA**
    - Incorporating and measuring diversity, equity, inclusion and accessibility goals in the project.
  - **Justice40**
    - 40% of the overall benefits of certain climate and clean energy investments must flow to disadvantaged communities.

\*For more information on Community Benefits Plans, please see: [Community Benefits Plan Frequently Asked Questions \(FAQs\) | Department of Energy](#)



# GRIP FOA 2740 Updates\*

- ▶ Key Updates
  - Concept Paper and Full Application Submission Schedule
  - Min/Max Award Sizes for each Topic Area
  - Technical Review Criteria and Program Policy Factors
- ▶ Other Items
  - Community Benefits Plan – additional details
  - Addition of Teaming Partner List to facilitate the formation of new project collaboration for this FOA.
  - Report on Resilience – additional details
  - Addition of Project Description and Assurances Document (PDAD)

***\*A Draft for Comment was issued on 08/30/2022 and closed on 10/14/2022. Based on the comments received, some changes were made to the final version prior to its release. Above is a non-exhaustive review of some of the key changes that resulted from the comments received.***





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**Thank you**

