



FUNDING ALERT!

DOE Grid Resilience and Innovation Partnerships (GRIP)

Professional Assistance for Today's Unprecedented Funding Opportunities

Program Name

Department of Energy (DOE) Grid Resilience and Innovation Partnerships (GRIP)

\$10.5 billion

Background

- **Administrator:** Department of Energy (DOE)
- **Authorizing Legislation:** Infrastructure Investment and Jobs Act (IIJA)
- **Total Fund Size:** \$10.5 billion
- **Program Purpose:** To bring together state, Tribal, community, and industry stakeholders in support of the following outcomes to improve the grid:
 - 1) Increase transfer capacity between regions
 - 2) Addressing consequential system needs and challenges that cause or contribute to increasing interconnection queue time for clean energy
 - 3) Increasing supply of a geographically and technologically diverse sets of location-constrained energy resources to enhance resource adequacy and reduce correlated generation outages
- **Strategic Goals**
 - 1) Transform community, regional, interregional, and national resilience, in preparation for future shifts in generation and load
 - 2) Catalyze and leverage private sector and non-federal public capital for impactful technology and infrastructure deployment
 - 3) Advance community benefits

Key Dates

- **Funding Opportunity Announcement:** November 18, 2022
- **Concept Papers Due**
 - Topic Area 1 (Grid Resilience): 12/16/2022 5:00pm ET
 - Topic Area 2 (Smart Grid): 12/16/2022 5:00pm ET
 - Topic Area 3 (Grid Innovation): 1/13/2023 5:00pm ET
- **Full Application Deadline**
 - Topic Area 1 (Grid Resilience): 4/6/2023 5:00pm ET
 - Topic Area 2 (Smart Grid): 3/17/2023 5:00pm ET
 - Topic Area 3 (Grid Innovation): 5/19/2023 5:00pm ET
- **DOE Selection Notification (expected date)**
 - Topic Area 1 (Grid Resilience): Summer 2023
 - Topic Area 2 (Smart Grid): Summer 2023
 - Topic Area 3 (Grid Innovation): Fall 2023
- **Award Negotiations**
 - Topic Area 1 (Grid Resilience): Fall 2023
 - Topic Area 2 (Smart Grid): Fall 2023
 - Topic Area 3 (Grid Innovation): Winter 2023

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Eligible Applicants

Funds will be awarded to eligible applicants by Topic:

Topic Area 1 - Grid Resilience Grants (40101(c))

- Electric grid operator
- Electricity storage operator
- Electricity generator
- Transmission owner or operator
- Distribution provider
- Fuel supplier

Topic Area 2 - Smart Grid Grants (40107)

- Institutions of higher education
- For-profit entities
- Non-profit entities
- State and local governmental entities and Tribal nations

Topic Area 3 - Grid Innovation Program (40103(b))

- State
- Combination of 2 or more States
- Indian Tribe
- Unit of local government
- Public utility commission

Eligible Uses

Topic Area 1 - Grid Resilience Grants (40101(c))

- A) Weatherization technologies and equipment
- B) Fire-resistant technologies and fire prevention systems
- C) Monitoring and control technologies
- D) The undergrounding of electrical equipment
- E) Utility pole management
- F) Relocation of power lines or reconductoring of power lines with low-sag, advanced conductors
- G) Vegetation and fuel-load management
- H) Use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events, including—
 - a. microgrids
 - b. battery-storage subcomponents
- I) Adaptive protection technologies
- J) Advanced modeling technologies
- K) Hardening of power lines, facilities, substations, of other systems
- L) The replacement of old overhead conductors and underground cables

Eligible Uses (continued)

Topic Area 2 - Smart Grid

- Enhance secure communication and data flow between distribution components, through investments in optical ground wire, dark fiber, operational fiber, and wireless broadband communications networks
- Increasing transmission capacity and operational transfer capacity through 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, to help quickly rebalance the electrical system with autonomous controls, through data analytics, software, and sensors
- 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 that support two-way flow of both electric power and localized analytics to provide information between electrical system operators and consumers
- Anticipate and mitigate the impacts of extreme weather or natural disaster on grid resiliency, including investments to increase the ability to redirect or shutoff power to minimize blackouts, prevent wildfires, and avoid further damage

Topic Area 3 - Grid Innovation Program (40103(b))

- Area of Interest 1 - Transmission System Applications
- Investments and strategies that accelerate interconnection of clean energy generation and/or storage
- Interregional or cross-ISO/RTO projects that address key grid reliability, flexibility, and/or resilience challenges
- Projects addressing grid access challenges for remote, stranded, or novel low-carbon resources
- Planning, modeling, cost allocation, or other approaches that enable a transition to innovative financial and/or regulatory constructs that accelerate transmission expansion
- Underground or underwater High Voltage Direct Current (HVDC) systems in challenging environments
- Capacity enhancing advanced conductors or dynamic line rating systems
- Congestion management techniques including energy storage and integrated controls
- Transmission-scale reactive power devices
- Flexible Alternating Current Transmission system (FACTS) devices
- Solid state transformers
- Power flow controllers for AC or HVDC systems
- Area of Interest 2 - Distribution System Applications
- Adaptive microgrid formation, reliable islanded operations, and service provision during grid-tied operations
- Demonstration of reliable and resilient system operations utilizing high levels of distributed renewable generation and energy storage, or increased levels of non-emitting, non-electric distributed energy resources (e.g., renewable heating or cooling)
- Black-start capable systems and control approaches to minimize impacts during grid disruptions
- Provision of grid services from distributed, advanced grid-forming inverter-based systems at sufficient scale and system complexity
- Behind the meter asset operations, aggregation, and coordination to provide demand response and grid services, including building systems, distributed generation, energy storage, electric vehicle fleets and others
- Area of Interest 3 - Combination System Applications
- Utilization of distribution grid assets to provide backup power and reduce transmission requirement
- Utilization of distribution grid dispatchable loads, distributed generation, and energy storage to manage transmission congestion and limit required upgrades

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Eligible Uses (continued)

- Optimized integrated management of transmission and distribution systems
- Monitoring and control technologies, that can provide improved resilience and extend grid visibility across the electric delivery system by providing real-time situational awareness

Concept Paper Sections

Cover Page (1-page limit)

- Project Title
- Topic Area
- Technical and business points of contact, names of all team member organizations
- Project Location(s)
- Any statements regarding confidentiality

Project and/or Technology Description (12-page limit)

- Applicants are required to be succinct
- How the project addresses the topic area's eligible uses and technical approaches
- How the project supports State, local, Tribal, community and regional resilience, in reducing the likelihood and consequences of disruptive events, decarbonization, or other energy strategies and plans
- Grid-benefitting outcomes to be delivered by the project
- Impact of the project to reduce innovative technology risk; achieve further deployment at-scale; and lead to private sector investment
- Impact that DOE funding would have on the proposed project
- Readiness, viability, and expected timing of the project

Community Benefits Plan (5-Page limit)

- Applicants are required to describe succinctly the approach to be taken with the Community Benefits Plan, addressing the four core elements
- Community and labor engagement leading to negotiated agreements
- Investing in job quality and workforce continuity
- Advancing diversity, equity, inclusion, and accessibility
- Contributing to the Justice40 Initiative goal that 40% of the overall benefits of certain climate and clean energy investments flow to disadvantaged communities

Addendum A (5-page limit)

- Applicants are required to describe succinctly the qualifications, experience, and capabilities of the proposed Project Team, including:
- Whether the Project Manager and Project Team have the skill and expertise needed to successfully execute the project plan
- Whether the applicant has prior experience that demonstrates an ability to perform tasks of similar risk and complexity
- Whether the applicant has worked together with its teaming partners on prior projects or programs
- Whether the applicant has adequate access to equipment and facilities necessary to accomplish the effort and/or clearly explain how it intends to obtain access to the necessary equipment and facilities
- Applicants may provide graphs, charts, or other data to supplement their Project and/or Technology Description

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Concept Paper Sections (continued)

Addendum B Topic Area 1 ONLY

- Applicants who are small utilities applying to Topic Area 1 must submit the EIA Form 861 for the last reporting year showing the total retail electricity sales to ultimate customers to ensure status as a small utility

Application Sections

- SF-424 Form
- Project/Performance Site Location(s) Form
- Technical Volume
- Resumes PDF
- Letters of Commitment
- Community Partnership Documentation
- Statement of Project Objectives
- Budget Justification Workbook
- Summary/Abstract for Public Release
- Summary Slide
- Subrecipient Budget Justification
- Environmental Questionnaire PDF
- SF-LLL Disclosure of Lobbying Activities Form
- Foreign Entity Waiver Requests and Foreign Work Waiver Requests
- Buy America Requirements for Infrastructure Projects Waiver Requests
- Community Benefits Plan: Job Quality and Equity
- Potentially Duplicative Funding Notice (if applicable)
- Report on Resilience Investments (Topic Area 1 ONLY)
- EIA 861 Topic Area 1 ONLY, if applicant is an entity that sells no more than 4M MWh of electricity per year (30% of total funding available will be set aside for small utilities)
- Locations of Work
- Project Description and Assurances Document (PDAD)

Match Requirement

Topic Area 1 - Grid Resilience Grants (40101(c))

- 100% match of the amount of the grant is required (at least 50% of the Federal funds only, rather than the Total Project Cost)
- Exception for small utilities: An eligible entity that sells not more than 4 million MWh per year shall be required to match 1/3 of the grant

Topic Area 2 - Smart Grid Grants (40107)

- At least 50% cost share of the total project costs
- The cost share must come from non-federal sources unless otherwise allowed by law

Topic Area 3 - Grid Innovation Program (40103(b))

- At least 50% cost share of the total project costs
- The cost share must come from non-federal sources unless otherwise allowed by law
- Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) applies

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Anticipated Award Details

Topic Area 1 - Grid Resilience Grants (40101(c))

- Anticipated Number of Awards: 10
 - Approximately 3 of the anticipated number of awards will be made to small utilities
 - 30% of total funding available will be set aside for small utilities, which are defined as entities that sell no more than 4 million MWh of electricity per year
- Maximum Award Size: Either the total of the applicant's last three years of resilience investments or \$100 million, whichever is lower (No minimum)
- Total Federal Funding Available: \$918 million
- Period of Performance: 60 months

Topic Area 2 - Smart Grid Grants (40107)

- Anticipated Number of Awards: 25-40
- Maximum Award Size: \$50 million (No minimum)
- Total Federal Funding Available: \$1.08 billion
- Period of Performance: 60 months

Topic Area 3 - Grid Innovation Program (40103(b))

- Anticipated Number of Awards: 4-40
- Maximum Award Size: \$250 million (No minimum)
 - Increased award size of \$1 billion per award for interregional transmission projects only
- Total Federal Funding Available: \$1.82 billion
- Period of Performance: 60-96 months

Links & Emails

- **DOE Press Release**
[Biden-Harris Administration Announces \\$13 Billion To Modernize And Expand America's Power Grid | Department of Energy](#)
- **GRIP Website**
[Grid Resilience Innovation Partnership Programs | Department of Energy](#)
- **GRIP Application Page & Funding Opportunity Announcement**
[Opportunity Summary](#) (Right side under Documentation > Funding Opportunity)
- **GRIP Fact Sheet**
[11.18.22 GRIP Overview Fact Sheet \(energy.gov\)](#)

- Opportunity Evaluation
- Effective Grant Writing
- Track Record of Success