





FACT SHEET

GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Established by the Bipartisan Infrastructure Law, the U.S. Department of Energy's Grid Deployment Office is administering a historic \$10.5 billion investment via the Grid Resilience and Innovation Partnerships (GRIP) program to enhance grid flexibility, improve the resilience of the power system against growing threats of extreme weather and climate change, and ensure American communities have access to affordable, reliable, clean electricity when and where they need it.

IMPROVING GRID EFFICIENCY, RELIABILITY, AND FLEXIBILITY IN ARKANSAS

The Arkansas Valley Electric Cooperative Corporation (AVECC) aims to increase efficiency, reliability, and flexibility through the development of a smart grid using proven industry technologies that are connected and controlled by supervisory control and data acquisition (SCADA) software. The proposed grid-enhancing technologies include advanced metering infrastructure (AMI), vacuum fault interrupter circuit reclosers, conservative voltage reduction (CVR) capable regulators, and real-time feedback switched capacitor banks.

Anticipated Outcomes and Benefits

The project will increase efficiency, reliability, and flexibility of AVECC's distribution grid to enhance lives within the rural cooperative territory and <u>disadvantaged communities</u> (DACs) by reducing grid maintenance costs and environmental impacts, as well as improving safety for electric utility workers and the community. These benefits include:

- > Increased device coordination and decreased restoration times by improving fault isolation and faster response time during outages.
- Proper load management, system balancing, voltage awareness, power factor correction, fast outage management, and early event detection by visualizing the entire distribution grid's health and load information from a remote location.
- Layered security approach consisting of both hardware and software securities, anti-malware technology, and proprietary protocols, enabling the Schweitzer Engineering Laboratories (SEL) equipment to be used in this project with guards against cyberattacks.
- Replacement of outdated oil-filled equipment with vacuum interrupter equipment to significantly reduce wildfire risks by eliminating flammable material expulsion in the event of a failure.
- > Eighty percent of service area receiving smart grid upgrades will be in DACs with high energy burdens.
- Decreased maintenance expenditures by about \$500,000 per year and elimination of approximately 2,600 gallons of waste oil per year since the proposed technology requires maintenance approximately every 10 years and does not include the creation of any waste oil.
- > Training workforce focused on the design, installation, operation, and maintenance of smart grid technologies deployed through this project through the administration of 200 hours per budget period of training.

PROJECT DETAILS

- Project:
 Beyond AMI to True Grid Intelligence
 With Distribution Automation
- Applicant/Selectee:
 Arkansas Valley Electric
 Cooperative Corporation
- GRIP Program:
 Smart Grid Grants (Bipartisan Infrastructure Law, Section 40107)
- Federal cost share: \$18,304,363
- Recipient cost share: \$18,310,825
- Project location:
 Northwest and South Arkansas
- Project type:
 Resilience and Sectionalization

HELPFUL LINKS

- > Grid Resilience and Innovation Partnerships Program
- > About the Grid Deployment Office

Published October 2023. Fact sheet information is based on project applications at the time of publication and should not be considered final.



GRID DEPLOYMENT OFFICE

Grid Resilience and Innovation Partnerships (GRIP) Program Projects

Grid Deployment Office

Grid Deployment Office » Grid Resilience and Innovation Partnerships (GRIP) Program Projects

Programs

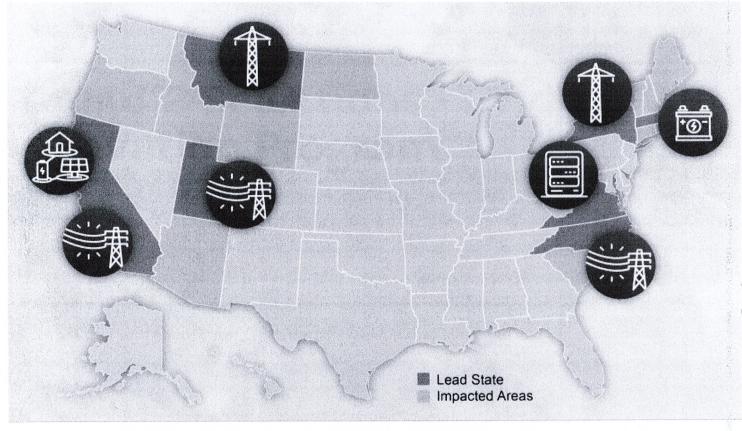
- Grid Resilience Utility and Industry Grants
- Smart Grid Grants
- Grid Innovation Program

As part of the Bipartisan Infrastructure Law, the Grid Deployment Office is administering a \$10.5 billion **Grid Resilience and Innovation Partnerships (GRIP) Program** to enhance grid flexibility and improve the resilience of the power system against growing threats of extreme weather and climate change.

These programs will accelerate the deployment of transformative projects that will help to ensure the reliability of the power sector's infrastructure, so all American communities have access to affordable, reliable, clean electricity anytime, anywhere.

Round 2 Selections - Grid Innovation Program

On August 6, 2024, the U.S. Department of Energy (DOE) announced the first eight selections for the second round of GRIP funding specifically for the Grid Innovation Program, one of three GRIP funding mechanisms. Through the second round of GRIP funding, the Grid Innovation Program will support eight projects across 18 states, totaling about \$2.2 billion in federal investment. Selections for the remaining two funding mechanisms will be announced later this year.



California Energy Commission	+
Massachusetts Department of Energy Resources	+
Montana Department of Commerce	+
New York Power Authority	+

North Carolina Department of Environmental Quality and State Energy Office	+
Redwood Coast Energy Authority	+
Utah Office of Energy Development	+
Virginia Department of Energy	+

Projects To Date

Through the first and second rounds of GRIP funding, GDO has announced \$5.7 billion in funding for 65 selected projects.

Grid Resilience Utility and Industry Grants

First round selected on October 18, 2023

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
Consumers Energy	Sectionalization and Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities	\$100,000,000	\$100,310,996	Selected	First
Electric Power Board of Chattanooga	EPB Chattanooga Grid Resiliency Upgrades: Network Conversions & Microgrids	\$32,375,691	\$32,375,691	Selected	First
Entergy New Orleans, LLC (ENO)	Line Hardening and Battery Microgrid in New Orleans, LA	\$54,828,178	\$54,828,178	Selected	First
Fort Pierce Utilities Authority	Mitigating Impacts of Extreme Weather and Natural Disasters Through Increased Grid Resiliency	\$5,828,993	\$2,907,882	Selected	First
Hawaiian Electric Company Inc.	Climate Adaption Resilience Program	\$95,313,716	\$95,313,718	Selected	First
Holy Cross Energy	Wildfire Assessment and Resilience for Networks (WARN)	\$99,328,430	\$45,762,816	Selected	First

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
Jamestown Board of Public Utilities	Jamestown Board of Public Utilities Microgrid	\$17,377,945	\$5,792,648	Selected	First
Kit Carson Electric Cooperative	Building a Modern, Intelligent Distributed BESS for Resiliency in Northern New Mexico	\$15,430,118	\$7,715,580	Selected	First
Midwest Energy, Inc.	Transmission Line Rebuild/Replacement for Wildlife Mitigation and Renewable Resource Access	\$96,942,707	\$47,717,412	Selected	First
Mora-San Miguel Electric Cooperative, Inc.	Three-Part Wildfire Damage Mitigation Project	\$11,270,193	\$3,756,731	Selected	First
PacifiCorp	PacifiCorp's Equity- aware Enhancement of Grid Resiliency	\$99,633,723	\$106,105,519	Selected	First
PECO Energy Company (PECO)	Creating a Resilient, Equitable, and Accessible Transformation in Energy for Greater Philadelphia (CREATE)	\$100,000,000	\$156,761,176	Selected	First
Southern Maryland Electric Cooperative	SMECO Transmission, Distribution, and Communications Resiliency Initiative	\$33,567,016	\$15,642,000	Selected	First
Sumter Electric Cooperative, Inc. d/b/a SECO Energy	Improving Reliability Through Grid Hardening	\$52,857,560	\$17,619,190	Selected	First
Tri-County Electric Cooperative, Inc. (TCE)	Tri-County Power Meter Squared & Green Tree	\$4,665,803	\$2,332,903	Awarded	First
Xcel Energy Services, Inc.	Wildfire Mitigation and Extreme Weather Resilience for Xcel Energy	\$100,000,000	\$142,020,463	Selected	First

Smart Grid Grants

First round selected on October 18, 2023

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
Algonquin Power Fund America Inc.	Enabling the Clean Energy Transition by Enhancing Grid	\$42,905,918	\$42,905,918	Withdrawn - 5/28/24	First

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUNE
	Stability Using SmartValve Technology				
Allete Inc.	Minnesota Power HVDC Terminal Expansion Capability	\$50,000,000	\$54,116,574	Selected	First
American Electric Power Service Corporation	AEP Advance Distribution Management System and Distributed Energy Resource Management System (ADMS & DERMS) Initiative	\$27,849,763	\$27,849,763	Selected	First
Arkansas Valley Electric Cooperative Corporation	Beyond AMI to True Grid Intelligence with Distribution Automation	\$18,304,363	\$18,310,825	Selected	First
Burlington Electric Department	Building Grid-Edge Integration and Aggregation Network of Thermal Storage (GIANTS)	\$1,158,695	\$1,160,000	Selected	First
Central Maine Power	Enhancing Utility Resilience in America's Most Forested State	\$30,306,795	\$30,306,795	Selected	First
City of Lake Worth	System Hardening and Reliability Improvement Program (SHRIP)	\$23,462,167	\$23,462,167	Selected	First
City of Naperville	Distributed Energy Resource Management System Implementation & Integrations	\$1,116,174	\$1,116,174	Awarded	First
Commonwealth Edison Company	Deployment of a Community- Oriented Interoperable Control Framework for Aggregating and Integrating Distributed Energy Resources and Other Grid-Edge Devices	\$50,000,000	\$66,000,000	Selected	First
CPS Energy	Community Energy Resiliency Program	\$30,227,710	\$30,227,710	Awarded	First
DTE Electric Company	Deploying Adaptive Networked Microgrids to Improve Grid Flexibility and Reliability Project	\$22,941,046	\$22,941,046	Selected	First

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUNE
Duquesne Light Company	Grid Visibility Program (GVP): Unlocking System- Wide Data to Build a More Resilient and Equitable Grid	\$19,724,715	\$20,215,000	Selected	First
Electric Power Research Institute Inc.	Optimizing Interregional Transfer Capacity Using Advanced Power Flow Control	\$18,017,358	\$18,017,358	Selected	First
The Empire District Electric Company (d/b/a Liberty)	Project DA: Distribution Automation Deployment in Missouri, Kansas, Arkansas, and Oklahoma	\$47,491,810	\$47,491,810	Selected	First
Florida Power & Light (FPL)	Smart Grid Manhole and Vault Monitoring Project	\$30,363,088	\$36,738,088	Selected	First
Generac Grid Services	Accelerating Building Thermal Electrification While Managing System Impacts	\$49,835,370	\$52,939,597	Selected	First
Liberty Utilities (CalPeco Electric), LLC	Project Leapfrog	\$13,071,300	\$13,071,300	Selected	First
Los Angeles Department of Water and Power	Expanding Distribution System Visibility and the Ability to Dispatch Distributed Energy Resources	\$48,000,000	\$48,000,000	Selected	First
Missoula Electric Cooperative, Inc.	Strategic Distribution System Modernization for Resilience and Wildfire Safety	\$2,749,071	\$2,749,070	Selected	First
National Grid USA Service Company, Inc.	The Future Grid Project	\$49,642,758	\$89,371,000	Awarded	First
Oklahoma Gas and Electric (OG&E)	Adaptable Grid Project	\$50,000,000	\$52,362,351	Selected	First
PacifiCorp	Resiliency Enhancement for Fire mitigation and Operational Risk Management	\$49,951,103	\$53,186,717	Selected	First
Pecan Street Inc.	Seasonal Solar Congestion Management (SEASCOM)	\$7,989,987	\$7,989,987	Awarded	First
Portland General Electric Company	Accelerating and Deploying Grid- Edge Computing	\$50,000,000	\$58,402,842	Selected	First
PPL Electric Utilities	The Grid of the	\$49,500,000	\$49,500,000	Selected	First

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
Corporation	Future				
Public Utility District 1 Of Snohomish County	Snohomish County Public Utility District's Secure Modern Automated and Reliable Technology Project (SnoSMART)	\$30,000,000	\$30,000,000	Selected	First
Rappahannock Electric Cooperative	Enabling EV and DER Adoption through DERMS, AMI, and Fiber Integration	\$38,162,015	\$38,162,015	Selected	First
Rhode Island Energy	Smart Grid for Smart Decarbonization: Deploying Advanced Technology for Smart Grid Investments	\$50,000,000	\$235,047,477	Selected	First
Sacramento Municipal Utility District	Connected Clean PowerCity	\$50,000,000	\$106,164,172	Selected	First
Surry-Yadkin Electric Membership Corporation (SYEMC)	Grid Deployment to Support Rural- Focused Resiliency at a Small-Scale Electric Co-op	\$7,486,808	\$7,700,738	Selected	First
Tri-State Generation and Transmission Association	Cooperative Energy Ecosystem	\$26,798,344	\$26,798,344	Selected	First
UMS Group	Advanced Solutions for Wildfire Mitigation	\$38,480,244	\$38,480,244	Selected	First
Union Electric Company (Ameren Missouri)	Rural Modernization	\$47,130,781	\$54,009,248	Selected	First
Virginia Electric and Power Co. (Dominion Energy Virginia)	Analytics and Control for Driving Capital Efficiency Project	\$33,654,095	\$33,654,095	Selected	First

Grid Innovation Program

- Second round selected on August 6, 2024
- First round selected on October 18, 2023

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
Alaska Energy Authority	Railbelt Innovative Resiliency Project	\$206,500,000	\$206,500,000	Awarded	First

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
California Energy Commission	CHARGE 2T: California Harnessing Advanced Reliable Grid Enhancing Technologies for Transmission	\$600,561,319	\$900,841,978	Selected	Second
City of Kaukauna	Kaukauna Utilities Grid Resilience Project	\$3,012,462	\$3,012,462	Selected	First
Confederated Tribes of Warm Springs Reservation of Oregon	Confederated Tribes of Warm Springs (CTWS) and Portland General Electric (PGE) Regional 500kV Transmission Innovative Partnership	\$250,000,000	\$363,953,472	Selected	First
Georgia Environmental Finance Authority	Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to- Reach Communities	\$249,129,382	\$258,010,362	Selected	First
Hawai'i State Energy Office (HESO) and Hawai'i Department of Business, Economic Development, and Tourism	Enabling High Penetration of Renewables with Synchronous Condenser Conversion Technology (SCCT)	\$1,675,000	\$1,675,000	Selected	First
Hawai'i State Energy Office (HESO) and Hawai'i Department of Business, Economic Development, and Tourism	Utility Solar Grid Forming Technology (USGFT)	\$16,250,000	\$16,250,000	Selected	First
Louisiana Department of Natural Resources	State of Louisiana: Louisiana Hubs for Energy Resilient Operations (HERO) Project	\$249,329,483	\$249,329,483	Selected	First
Massachusetts Department of Energy Resources	Power Up New England	\$389,345,755	\$499,212,688	Selected	Secon
Minnesota Department of Commerce	Joint Targeted Interconnection Queue Transmission Study Process and Portfolio	\$464,000,000	\$1,300,000,000	Selected	First
Montana Department of Commerce	North Plains Connector Interregional Innovation	\$700,000,000	\$2,899,540,962	Selected	Secon
New York Power Authority	Transforming the Empire State: Clean Path New York	\$30,000,000	\$3,209,440,351	Selected	Secon
North Carolina Department of Environmental Quality and State Energy Office	North Carolina Innovative Transmission Rebuild	\$57,099,386	\$57,099,386	Selected	Secon
Redwood Coast Energy Authority	Tribal Energy Resilience and Sovereignty (TERAS) Project	\$87,629,455	\$88,971,068	Selected	Secon

Grid Resilience and Innovation Partnerships (GRIP) Program Projects | Department of Energy

APPLICANT/SELECTEE	PROJECT	FEDERAL COST SHARE	RECIPIENT COST SHARE	STATUS	ROUND
Utah Office of Energy Development	Reliable Electric Lines: Infrastructure Expansion Framework (Project RELIEF)	\$249,557,047	\$252,030,385	Selected	Second
Virginia Department of Energy	Data Center Flexibility as a Grid Enhancing Technology	\$85,433,351	\$106,046,099	Selected	Second

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Grid Resilience and Innovation Partnerships (GRIP) Program

Grid Resilience and Innovation Partnerships (GRIP) Program Projects

See the full list of projects.

As part of the Bipartisan Infrastructure Law, the Grid Deployment Office is administering a \$10.5 billion Grid Resilience and Innovation Partnerships (GRIP) Program to enhance grid flexibility and improve the resilience of the power system against growing threats of extreme weather and climate change.

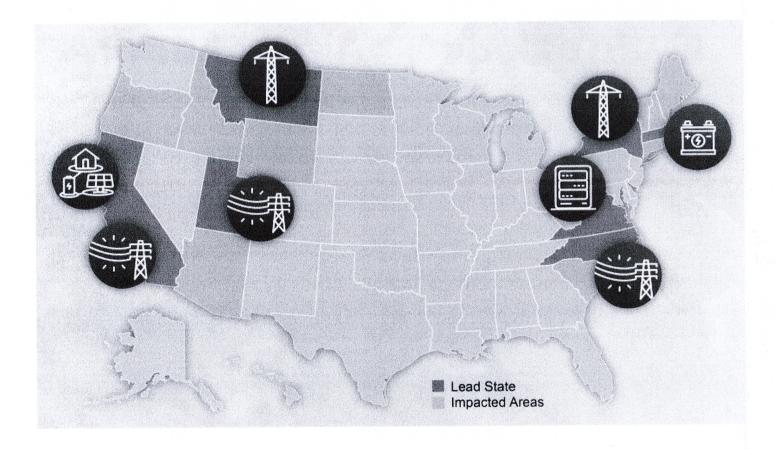
These programs will accelerate the deployment of transformative projects that will help to ensure the reliability of the power sector's

infrastructure, so all American communities have access to affordable, reliable, clean electricity anytime, anywhere.

Second Funding Opportunity

On August 6, 2024, the U.S. Department of Energy (DOE) announced a \$2.2 billion investment in the nation's grid for eight projects across 18 states to protect against growing threats of extreme weather events, lower costs for communities, and catalyze additional grid capacity to meet load growth stemming from an increase in manufacturing and data centers.

The selections are made through **Grid Innovation Program** grants, one of three GRIP funding mechanisms, that seek to deploy projects that use innovative approaches to transmission, storage, and distribution infrastructure to enhance grid resilience and reliability.



The full list of projects is available online.

The second round of selections for GRIP's the Grid Resilience Utility and Industry Grants and the Smart Grid Grants will be announced later this year.

First Funding Opportunity

On October 18, 2023, the U.S. Department of Energy announced up to \$3.46 billion in Grid Resilience and Innovation Partnerships (GRIP) Program investments for 58 projects across 44 states to strengthen electric grid resilience and reliability across America. This includes 16 projects selected under Grid Resilience Utility and Industry Grants. See the full list of projects.

Program Information

The Program includes three funding mechanisms:

Grid Resilience Utility and Industry Grants (\$2.5 billion)

Grid Resilience Utility and Industry Grants support activities that will modernize the electric grid to reduce impacts due to extreme weather and natural disasters. This program will fund comprehensive transformational transmission and distribution technology solutions that will mitigate multiple hazards across a region or within a community, including wildfires, floods, hurricanes, extreme heat, extreme cold, storms, and any other event that can cause a disruption to the power system. This program provides grants to electric grid operators, electricity storage operators, electricity generators, transmission owners or operators, distribution providers, and fuel suppliers.

Smart Grid Grants (\$3 billion)

Smart Grid Grants increase the flexibility, efficiency, and reliability of the electric power system, with particular focus on increasing capacity of the transmission system, preventing faults that may lead to wildfires or other system disturbances, integrating renewable energy at the transmission and distribution levels, and facilitating the integration of increasing electrified vehicles, buildings, and other grid-edge devices. Smart grid technologies funded and deployed at scale under this program will demonstrate a pathway to wider market adoption. This grant program has broad eligibility, open to domestic entities including institutions of higher

education; for-profit entities; non-profit entities; and state and local governmental entities, and tribal nations.

Grid Innovation Program (\$5 billion)

Grid Innovation Program provides financial assistance to one or multiple states, Tribes, local governments, and public utility commissions to collaborate with electric sector owners and operators to deploy projects that use innovative approaches to transmission, storage, and distribution infrastructure to enhance grid resilience and reliability. Broad project applications are of interest including interregional transmission projects, investments that accelerate interconnection of clean energy generation, utilization of distribution grid assets to provide backup power and reduce transmission requirements, and more. Innovative approaches can range from use of advanced technologies to innovative partnerships to the deployment of projects identified by innovative planning processes to many others.

Visit the **Grid and Transmission Program Conductor** for additional information to help identify which financing program is most appropriate for individual projects.

Resources

Materials including recordings, transcripts, and presentation slides from past informational webinars are available below.

Resources that were published before October 2023 pertain to the first GRIP funding opportunity (FY22-FY23). They do not reflect the release of the second funding opportunity (FY24-FY25) released on November 14, 2023.

Webinar Materials

FY24-FY25 Second Funding Round

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