

# Grid Resilience and Innovation Partnerships (GRIP)

#### **Round 2 Selections**

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# Agenda

- 1. Welcome
- 2. GRIP Overview
- 3. GRIP Round 2 Selections
- 4. What's Next?





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# What is GRIP?

- ▶ \$10.5 billion to enhance grid flexibility and improve the resilience of the power system against growing threats of extreme weather
- Through GRIP investments, DOE is maximizing grid infrastructure deployment at-scale and leveraging private sector and non-federal public capital to advance grid and transmission deployment goals
- GRIP includes three programs:
  - Grid Resilience Utility and Industry Grants (BIL Section 40101c)
  - Smart Grid Grants (BIL Section 40107)
  - Grid Innovation Program (BIL Section 40103b)

### GRIP at a Glance

## \$10.5 billion in **competitive grants** to enhance grid flexibility and improve the resilience of the power system

#### **Grid Resilience Utility & Industry Grants (BIL 40101c - Topic Area 1)**

- ▶\$2.5 billion for resilience projects that reduce the likelihood and consequence of impacts to the electric grid due to extreme weather, wildfire, and natural disaster
- ▶ Eligible entities: Grid operators, storage operators, electricity generators, transmission owners/operators, distribution providers, fuel suppliers

#### Smart Grid Grants (BIL 40107 - Topic Area 2)

- ▶\$3 billion for innovative and ambitious uses of cutting-edge, market-ready technologies
- ▶ Eligible entities: Institutions of higher education, for-profit entities and non-profit entities, state and local governmental entities, tribal nations

#### **Grid Innovation Program (BIL 40103b – Topic Area 3)**

- ▶\$5 billion for high-impact, innovative projects that improve grid reliability and resilience on the local, regional, and interregional scales
- ▶ Eligible entities: States or a combination of states, tribal nations, units of local government, public utility commissions

# GRIP Round 1 Selections (October 2023)

- \$3.5 billion for 58 selected projects in 44 states across the U.S. to enhance the nation's ability to deliver affordable, clean energy to American communities, prepare for extreme weather, and meet clean energy goals.
  - Largest single direct investment in critical grid infrastructure in U.S. history.
- **\$8 billion total** in public and private investment.
- Projects will enable the addition of 35 GW of renewable energy, expanding U.S. renewable energy capacity by 10.5%.
- 54 awards have been issued.





## **GRIP Round 2 Selections**

### **GRIP Round 2 Selections**



46 projects

47 states + DC

63 million homes and businesses benefitting



**\$4.2 billion** federal investment

\$14.4 billion
public & private
investment



20 GW expanded grid capacity and new resources



Nearly 2,000
miles of new or
upgraded
transmission
lines



**11,000 jobs** created or supported

\$475 million dedicated to community benefits





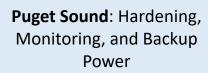
### **GRIP Round 2 Selections**

Program	Round 2 Selections
Grid Resilience Utility/Industry Grants (40101c)	14 projects \$887M federal investment \$1.75B total investment
Smart Grid Grants (40107)	24 projects <b>\$1.07B federal investment</b> \$2.49B total investment
Grid Innovation Program (40103b)	8 projects <b>\$2.2B federal investment</b> Nearly \$10B total investment



### Selected Projects: 40101c - Grid Resilience Grants

40101c Lead Applicant State Partner/Significantly Impacted State



#### **Black Hills Electric Cooperative:** Wildfire Mitigation

#### **Delaware County Electric Coop:**

Consortium of 7 coops implementing hardening, remote sensing, and FLISR

#### **Kotzebue Electric** Cooperative:

Weatherization and Sectionalization

TVA: Multi Market Interconnection and Resilience (8 States) Randolph Electric: Circuit

Tie Hardening Jones-Onslow:

**Transmission Hardening** 



**Entergy Texas**: Hurricane Hardening in Port Arthur

(TX, OK, NM)

#### **Georgia Transmission Corporation:**

Consortium of Co-Ops in 11 States: Reconductoring with Advanced Conductors





Rita Blanca: Transmission Loop

Gainesville Regional **Utilities**: System

Hardening

**Hoosier Energy Rural** 

Electric Coop: New

**Transmission Loops** 

### Selected Projects: 40107 – Smart Grid Grants

Avista: Tx rebuild with GETs to add 450MW of capacity

E Source: Advanced Resilience Technologies

#### Southern California Edison:

solid-state substation
Generac: Water
Infrastructure DERs
Imperial Irrigation:
Distribution Automation

Arizona Public
Service: Dynamic Line
Rating

**PNM**: Distributionautomation integrated VPP U of Illinois: Advanced Conductors Otter Tail
Power: DER
Adoption

Wi P&L: Automation Technologies

VEIR: Advanced
Conductors

Exelon: DERMS
Switched Source:
Distribution Automation (FL)

First Energy: Automation Technologies

Ameresco: Front-ofmeter renewable microgrid supporting a US Navy base

Tombigbee Electric
Cooperative: Topology and
distribution modernization

40107 Lead Applicant StatePartner/Significantly ImpactedState

BGE: Interconnection /Storage Maine Governor's
Office: Flexible
interconnection

Wighland Electric Fleets: V2G with electric school buses across 11 states

Elevate Renewables: Innovative Inertia Management

**Grid Unity**: Interconnection

Fayetteville Public Works: System Automation

**Georgia Power**: Advanced conductors

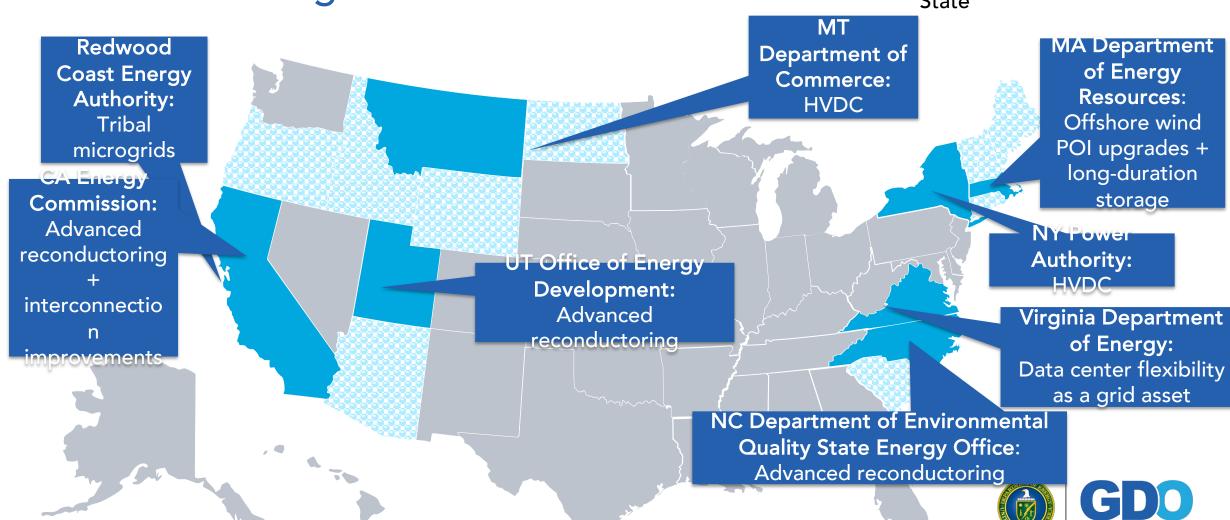






### Selected Projects: 40103b – Grid Innovation Program





# Selected Project Themes

- Resilience investments focus on wildfire as well as hurricane hazards (flooding, high winds)
- Examples: fault location, isolation & service restoration (FLISR), reclosers, undergrounding, monitoring & control

**Resilience & Reliability** 

- 12 projects with new or reconductored transmission
- At least 15 projects deploying advanced conductors
- 950+ miles total of transmission innovation
- Transmission loops for reliability

Transmission
Innovation and
Resilience

- 9 microgrid, storage-as-NWA, and/or VPP projects
- 3 projects focused on V2G orchestration
- Interconnection hardware and software improvements
- 20 GW total capacity enabled

DER Innovation and Grid Integration

- 7 projects impact at least 6 different states
- 8 vendor-led projects
- Public-private partnerships

Broad Consortia
Approaches





### Community Benefits

- Across the 46 selected projects, about \$475 million will be invested in workforce development, scholarship and apprenticeship programs, and grants to community organizations.
- More than 80% of the projects will work with the International Brotherhood of Electrical Workers (IBEW).
- GRIP projects will significantly invest in 1,000+ Disadvantaged Communities (DACs).
- Projects will improve energy affordability and reliability for consumers across the country.

### Note on Selections

- DOE had approximately \$3.9 billion in total funding available for this round of GRIP.
- We received 325 applications requesting over \$30 billion in total funds over 7X the amount of funding available, or an oversubscription rate of over 790%.
- For both rounds of GRIP, we have received over \$50B in funding requests for projects across all 50 states.





# Highlights: GRIP Rounds 1 & 2

### GRIP 1 and 2



**104 projects** 

50 states + DC

90 million homes and businesses benefitting



**\$7.6 billion** federal investment

**\$22.6 billion** public & private investment



**55 GW** expanded grid capacity and new resources



2,600+ miles of new or upgraded transmission lines



Nearly **15,000 jobs** created or supported

\$500+ million dedicated to community benefits



### What's Next?



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  - Search and sort by impacted state, award status, funding round, topic area, or (coming soon!) project type.



# Thank You!

