GRID DEPLOYMENT OFFICE

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.

INCREASING REAL-TIME RESPONSES VIA ADAPTIVE NETWORKED MICROGRIDS

DTE Energy will lay the foundation for the development of a 100% renewable adaptive networked microgrid (ANM) by deploying new grid sensing and fault location devices, communications devices, and reclosers. The proposed work will make optimal use of DTE's newly deployed advanced distribution management system (ADMS) to sectionalize faults and enhance reliability for customers after extreme weather events. ANMs can adapt to changing energy demands and supply conditions in real-time, especially after extreme weather events. With their flexibility and ability to incorporate renewable energy and improve reliability, ANMs are a promising solution for meeting increasing electricity demand and reliance.

Anticipated Outcomes and Benefits

The proposed work will revitalize the community's energy system and mitigate the impact of severe weather events. These benefits include:

- Reducing outages for customers within the microgrid areas by 50%–80% and decreasing the total duration of outages by 15%–30%.
- Increasing renewable sources by a total of 12 MWh of battery storage and 500 kW of solar generation.
- Reducing the total run time for diesel equipment by 5% (294 hours), cutting 9.1 tons of NOX emissions, 1.9 tons of CO, 0.13 tons of SO2, 0.25 tons of VOC and 0.28 tons of PM.
- Committing to engage with the communities and solicit feedback from diverse sources to guide decision making.
- Emphasis on supporting disadvantaged areas with extreme energy burden.
- Committing to share lessons learned to catalyze future deployment of similar systems.
- Committing to develop a Community Benefit Agreement and a strategy to create a qualified talent pipeline and energy education in the local area.

PROJECT DETAILS

- **Project:** Deploying Adaptive Networked Microgrids to Improve Grid Flexibility and Reliability Project
- **Applicant/Selectee:** DTE Electric Company
- **GRIP Program:** Smart Grid Grants (Bipartisan Infrastructure Law, Section 40107)
- **Federal cost share:** $22,941,046
- **Recipient cost share:** $22,941,046
- **Project Location:** Michigan
- **Project type:** Resilience and Sectionalization

HELPFUL LINKS

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

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