



GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Increasing Renewable Energy Access in Rural Communities in the Upper Midwest

Established by the Bipartisan Infrastructure Law, the Grid Resilience and Innovation Partnerships (GRIP) Program is a \$10.5 billion investment to enhance grid flexibility, improve the resilience of the power system against extreme weather, and ensure American communities have access to affordable, reliable, electricity when and where they need it. GRIP funding is administered by the U.S. Department of Energy's Grid Deployment Office (GDO). This project was selected through the second round of GRIP funding.

Otter Tail Power Company's Innovative Distributed Energy Automation (IDEA) program is designed to increase clean energy access in rural areas across Minnesota, North Dakota, and South Dakota. The IDEA program will optimize regional renewable energy use through improved management and deploy EV charging stations, electric school buses, and an advanced grid management system. The project is estimated to deliver \$193 million in customer value over 10 years, reduce transportation emissions, and increase access to distributed energy resources (DERs).

Anticipated Outcomes and Benefits

Sophisticated grid-edge management: The project will develop a new grid-edge management system (GEMS) that builds on legacy demand-response systems and enables further expansion to a distributed energy resource management system (DERMS). The system will offer superior grid visibility and the seamless integration of DERs, empowering local communities. The advanced control offered by the GEMS can also reduce congestion on the transmission system—including along the Midcontinent Independent System Operator and Southwest Power Pool seam—improving the efficiency of the existing system.

Transportation electrification in rural communities: The project will construct a network of fast-charging stations for electric vehicles, strategically placed to ensure accessibility even in remote areas. This will address the current shortcoming of highway-focused charging initiatives, which leave many rural residents without convenient options for electric transportation. Otter Tail Power will also partner with eight school districts to provide electric school buses and charging infrastructure.

Community benefits: IDEA prioritizes Disadvantaged Communities (DACs), accelerating clean energy investments in historically underserved areas. All eight electric school buses and four of the seven EV charging stations will be placed in DAC communities. The project will be completed using local labor. The project will create more than 400 direct jobs over five years, in addition to more than 200 indirect and induced jobs. A portion of this project will be executed in collaboration with the International Brotherhood of Electrical Workers (IBEW).

Project Details



- **Project:**
Innovative Distributed Energy Automation (IDEA)
- **Applicant/Selectee:**
Otter Tail Power Company
- **GRIP Program:**
Smart Grid Grants
(Bipartisan Infrastructure Law, Section 40107)
- **Federal cost share:**
\$19,585,751
- **Recipient cost share:**
\$29,873,299
- **Project location:**
Minnesota, North Dakota, South Dakota
- **Project type:**
Situational Awareness and System Automation Solutions; Electric Vehicles

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