

Grid of the Future

Project Manager: Eric Resch (Project Manager, PPL Electric Utilities Corp.)



Proposed Activity

The Grid of the Future Project (Project) represents approximately \$94 million in investments in response to the U.S. Department of Energy (DOE) FOA Number: DE-FOA-0002740, BIL – Grid Resilience and Innovation Partnerships (GRIP), Topic Area 2: Smart Grid Grants (Sec. 40107). The Project portfolio includes a combination of information technology (IT) and operational technology (OT) investments focused on creating a self-healing electric grid that predicts failures, reduces outages, increases resilience, improves customer affordability, and maximizes grid flexibility. These investments build on over a decade of PPL Electric Utilities Corporation's (PPL Electric) smart grid innovation and enable its communities to pursue ambitious transportation electrification targets within their Climate Action Plans by increasing the grid flexibility in Pennsylvania. This portfolio was carefully selected for its transformative impact in creating an automated, self-healing grid that supports climate plans for PPL Electric's communities despite increased storms and the recent uptick in outages across Pennsylvania.

Drivers & Objectives

As PPL Electric's communities increasingly focus on addressing climate change with aggressive carbon targets, its service territory is seeing a growing number of storms that could jeopardize these goals. PPL Electric plans to utilize DOE funding to advance its communities' goals by unlocking self-healing capabilities to mitigate concerns caused by weather events.

Alignment with local, state,
and federal carbon
reduction goals

Enablement of EV adoption,
electrification, and DER
integration

Investments that support
economic development &
smart manufacturing

Impacts & Outcomes

The combined PPL Electric & DOE investment in Pennsylvania will have significant downstream economic and health-related effects on PPL Electric's communities, including historically underrepresented communities. The investments made possible with GRIP funding will advance Pennsylvania's climate goals, unlocking clean energy impacts as well. PPL Electric anticipates the following direct and induced benefits of the Grid of the Future program.

Reduced Outages
Nearly 240,000 minutes

Job Creation
150-225 economy-wide

GDP Growth
Nearly \$150 million

CAP Potential
12+ communities