PPL Electric, U.S. Department of Energy showcase technology helping build a stronger, smarter grid

Technology supporting a stronger, smarter electric grid.

ALLENTOWN, Pa. (Sept. 2. 2026) – PPL Electric Utilities and the U.S. Department of Energy today provided a firsthand look at technology being advanced to strengthen the electric grid and support reliable service for customers across Pennsylvania.

During a visit to PPL Electric's Walbert Training Center in Allentown, leaders from PPL Electric and DOE discussed work supported through the Grid Resilience and Innovation Partnerships, or GRIP, program. The public portion of the event included remarks from PPL Electric Utilities President Christine Martin and the Honorable Office of Electricity Assistant Secretary Katie Jereza, as well as demonstrations of innovative grid technologies.

"A stronger, smarter grid starts with giving our people the right tools and information to serve customers safely and reliably," said Martin. "Our work with the Department of Energy is helping us move promising technology into real-world operations, where it can help us identify problems sooner, limit the impact of outages and support faster restoration for the communities we serve."

The GRIP grant supports PPL Electric's Grid of the Future projects, which include smart reclosers, predictive-failure sensors, upgrades to underground electric infrastructure, modernized grid-control systems and an improved digital model of the electric system. Together, these tools are intended to improve visibility into grid conditions and help PPL Electric make more informed operational decisions.

"PPL Electric's work shows how federal and utility partnerships can accelerate practical grid improvements that benefit customers and communities," said Jereza. "Under President Trump's leadership, through the Grid Resilience and Innovation Partnerships (GRIP) Program and the Powering America 250 initiative, DOE is supporting innovative technology that prioritizes affordability, reliability and security as core pillars of its national energy policy to maintain a stable electric grid for changing customer needs."

During the Walbert demonstration, attendees saw three technologies intended to improve the reliability, safety and operation of the electric grid:

- **Single-phase smart reclosers** are the foundation of PPL Electric's existing smart grid and can automatically isolate problems on the electric system to limit the number of customers affected by an outage. Through the GRIP-supported project, PPL Electric plans to add up to 250 more of these devices, with anticipated reliability benefits for approximately 28,000 customers, particularly in rural areas.
- **Predictive-failure monitoring sensors** can detect signs of damaged or deteriorating equipment on electric-distribution circuits. The information can help PPL Electric address potential problems before equipment fails, while also supporting safer operations, targeted maintenance and longer equipment life.
- **Low-tension network automation** will add advanced relays, sensors, fiber-optic communications and remote-monitoring capabilities to underground electric networks. These improvements are intended to help operators identify issues sooner, reduce unplanned outages and improve worker safety.

Together, the project's hardware and software components are designed to work seamlessly across the transmission and distribution systems and deliver practical benefits for customers. PPL Electric's Grid of the Future project will:

- **Prevent and shorten power outages** through intelligent grid devices, sensors and automation on single-phase and underground networks.
- **Improve system reliability and reduce maintenance costs** through predictive-failure monitoring technology.
- **Provide real-time visibility into the grid** to help identify outages, changes in customer demand and fluctuations in distributed energy resources, allowing operators to reroute power and safely balance its flow.
- **Support increased connections of distributed energy resources and electric vehicles** through information technology enhancements that use artificial intelligence and machine learning.

About the GRIP grant

The Department of Energy's Grid Resilience and Innovation Partnerships program provides federal support for projects that strengthen and modernize the nation's electric grid. The grant supports PPL Electric's Grid of the Future projects, helping advance hardware and software solutions designed to prevent and shorten outages, improve grid visibility and support reliable service as customer needs change.

About PPL Electric Utilities
PPL Electric Utilities delivers safe, reliable and affordable electricity to about 1.5 million homes and businesses in eastern and central Pennsylvania. It regularly ranks among the country's best utility companies for reliability and customer satisfaction. PPL Electric Utilities is a major employer and an active supporter of the communities it serves. It is a part of the PPL Corporation (NYSE: PPL) family of companies. Visit pplelectric.com or connect on social media via Facebook, X and Instagram for energy efficiency tips, bill help information, guidance on shopping for an electricity supplier, storm updates and more.

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