Orefield Transmission Project

Introduction

A resilient transmission system helps us deliver safe, reliable, affordable and sustainable electricity across the region. That's why we've invested in focused upgrades and have continued to innovate and advance our electric grid through transmission projects that help to improve reliability, protect the grid from extreme weather, spur economic growth and enable renewable energy interconnections.

We're planning to build approximately two miles of transmission lines as well as a new substation in South Whitehall Township in Lehigh County to strengthen the reliability and resiliency of the transmission system for all customers. By creating additional pathways for electricity delivery, we're ensuring customers have dependable service while meeting the growing demand for power in this area. This proposed project will help create a stronger, more resilient electric grid that enables the delivery of safe, reliable and sustainable electricity across the region.

Frequently Asked Questions

PPL Electric Utilities Project Details

What are the specifics of this proposed project?

PPL Electric Utilities is planning to build approximately two miles of transmission lines as well as a new substation in South Whitehall Township in Lehigh County. The new substation will be constructed north of Huckleberry Road, adjacent to PPL Electric's existing Susquehanna-Wescosville 500 kV transmission line. PPL Electric's existing double-circuit Siegfried-Wescosville 138 kV transmission line will be split and extended approximately 0.5 miles to the proposed substation. Additionally, the existing Susquehanna-Wescosville 500 kV and Wescosville-Central Allentown 138 kV transmission lines will be split and routed a short distance into the proposed substation. Three new double-circuit 138 kV transmission lines will also be constructed and run east approximately 1.5 miles from the proposed substation, within a proposed 250-foot-wide right-of-way corridor, to a new customer facility.

Why is this project needed?

This project is designed to strengthen the reliability and resiliency of the transmission system for all customers. By creating additional pathways for electricity delivery, we're ensuring customers have dependable service while meeting the growing

demand for power in this area. It will also allow a new customer to connect to the transmission grid.

What townships will the transmission lines run through?

The new transmission lines and substation will be constructed in South Whitehall Township in Lehigh County.

Will this project require additional right-of-way?

Yes. The new transmission lines will require the acquisition of new right-of-way. The project will require a new corridor approximately 250 feet wide. PPL Electric will begin working with landowners in the area to purchase the necessary easements after a public open house being held on January 14, 2026.

What does the construction process include?

First, please know that we're committed to minimizing disruptions as much as possible in any future construction, if approved.

Construction includes installation of environmental controls and access roads, clearing of any trees in the new right-of-way and installation of new steel transmission structures. Construction will also involve creating temporary work pads and pull pads, which will be used to install the new conductors. All disturbed areas will be restored upon completion of the project.

Construction will begin at one end of the transmission line and proceed, in phases, toward the opposite end. Work will take place in segments, not along the entire route all at once.

What will these new transmission poles look like?

The transmission structures will be constructed of steel with a dark-brown protective coating and are designed to be stronger and more weather-resistant. Based on preliminary engineering, the 500 kV monopoles will range in height from 150 feet to 170 feet, with an average height of 160 feet while the 138 kV monopoles will range in height from 80 feet to 115 feet, with an average height of 100 feet. Actual pole heights will be determined during final engineering.

Will my power need to be turned off for this work?

No. The project will not require outages on our distribution system, which provides electricity to residents and local businesses.

Will this project need to be approved by the Pennsylvania PUC?

Yes. The project will require Pennsylvania PUC review and approval.

When will this project be built?

We anticipate that the entire construction process for the transmission lines and substation will require approximately two years. With a proposed start date of summer 2026, we anticipate that the project will be completed by summer 2028.

Working with Property Owners

Will this project affect my property value?

We understand this is an important concern. Based on available data, projects like this have not shown long-term effects on property values.

How is the value of an easement determined?

We determine the value of an easement by obtaining a fair market value analysis from a certified third-party appraiser, and then we negotiate with the property owner to reach a mutually agreeable payment.

Is there any compensation for those property owners near the line from whom PPL Electric doesn't need to purchase right-of-way?

No.

Is it possible PPL Electric will use eminent domain?

Our first choice is to always negotiate and reach an amicable settlement with landowners. If we have not reached an agreement with a property owner from whom we need to acquire right-of-way, we will file an application with the Pennsylvania Public Utility Commission seeking authorization to use eminent domain. In the eminent domain process, PPL Electric pays the estimated just compensation as determined by the certified appraiser's fair market value analysis report.

Will landowners still be able to use the land included in the easement?

PPL Electric pays for the acreage of the easement area as though it is buying it, since the landowner will have limited use of it. While they cannot build a building in the easement, that land can still be utilized for many uses. More information on right-of-way use guidelines can be found on our website: PPL Electric Utilities Right-of-Way Information.

How is PPL Electric communicating with area residents and other stakeholders?

As always, we're committed to keeping landowners and communities informed throughout each step of the project.

PPL Electric will host an informational open house on Wednesday, January 14, 2026, at the South Whitehall Municipal Building located at 4444 Walbert Avenue, Allentown, PA 18104. A project team will be available to provide information about the project and answer any questions residents may have. There is no set agenda for the open house and no formal presentations, so residents can feel free to visit at their convenience any time between 6 and 8 p.m.

More information about the project can be found on our dedicated project webpage at pplelectric.com/OrefieldProject and we've also established a dedicated email address, OrefieldProject@pplweb.com, for the community to provide feedback and ask any specific questions they may have.

Other Questions

What is a transmission line?

Transmission lines carry electricity at high voltages across long distances to efficiently connect power plants with areas where customers need the power. Transmission lines are similar to interstate highways in the interconnected electric system.

What is a substation?

A substation houses electrical infrastructure — including circuit breakers, protective devices and transformers — required to safely control and transform the flow and level of high voltage power across transmission lines.

Does EMF have any effect on health?

"EMF" is an abbreviation for "electric and magnetic fields" and "electromagnetic fields."

Current scientific evidence does not confirm the existence of any health consequences from exposure to low-level electromagnetic fields. Power lines, appliances and home wiring all produce electric and magnetic fields. More information, including links to studies by outside agencies, can be seen on our website at pplelectric.com/emf.

Could this line be built underground?

The vast majority of PPL Electric's transmission system is above ground. We consider a host of factors in siting transmission lines, including costs and potential impacts to the community and the environment, which are paid for by customers. Building a transmission

line underground can be several times more expensive than overhead construction. There are several reasons for this:

- It takes multiple underground lines to equal the capacity of a single overhead line.
- Underground lines require more earth disturbance for trenching.
- If damaged, underground lines can take substantially longer to repair, a delay that could seriously affect reliable electric service.
- If the underground line is placed within a roadway, there are often other underground utilities that must be avoided.

Underground lines are not invisible — they require a surface right-of-way stripped of all vegetation and trees and manholes for access. Because of these issues, underground transmission construction typically only makes sense in areas where there is no viable above-ground route.

Some transmission lines make an audible "buzz." Will that be the case with these lines?

The buzz that you may hear from the proposed transmission line is caused by small electric discharges on the surface of the wires known as "corona." This harmless phenomenon is most noticeable on humid days when water droplets form on the transmission lines. PPL Electric will make every effort to minimize any increases in audible noise during the engineering phase of the project.

Open Space and Environmental

Will this project have any adverse impact on the environment?

We will work very hard to minimize any impact on the natural environment. Our track record shows that we work cooperatively with regulatory agencies, obtain all required permits, and comply with all environmental requirements and regulations under the terms of our permits.

Will PPL Electric Utilities need to cut down trees to build this project?

Yes. Tree removal will be required within newly acquired right-of-way corridors.

What happens if there are wetlands in the area where this work will be completed?

PPL Electric has an excellent record of building projects in a way that is extremely sensitive to environmental issues, and we will address wetlands in a manner consistent with all applicable regulations. This includes trying to avoid putting poles in wetlands and instead placing them on either side of a wetland and spanning it with the wires.

If you disturb any current wetlands, are you going to build new ones elsewhere?

PPL Electric plans to comply with Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers regulations that exist for conducting work in wetland areas.

Why does PPL Electric Utilities use herbicides to maintain its rights-of-way?

Herbicide use is an effective vegetation management technique that minimizes the physical impact on a power line right-of-way while enabling us to maintain safe and reliable electric service.

All herbicides are applied selectively by Pennsylvania Department of Agriculture certified contractors working on the ground with hand-held equipment or with all-terrain vehicles.

Compatible species are preserved as much as possible since they provide natural competition for tall-growing species of trees. This low-growing plant community also provides ideal habitat for wildlife that feeds on saplings of many of the tall-growing species. The combined effects of plant competition and wildlife activity help minimize the herbicides needed to ensure safe and reliable electric lines.

What effect will herbicide application have on wildlife and the environment?

We will apply only products that have been approved for use on utility right-of-way by the U.S. Environmental Protection Agency. These products have undergone significant testing to ensure that, when used according to labeled instructions, they pose no threat to you, wildlife or the environment. In fact, some of the materials we use are the same as those commonly used by homeowners. There are significant, well-documented benefits resulting from the selective herbicide application techniques we use. Ideal wildlife habitat is created within these right-of-way corridors.

Other Resources

- Project Email: OrefieldProject@pplweb.com
- Orefield Project Webpage