# Sugarloaf 500 kV 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 12 miles of new 500 kV transmission line as well as two new switchyards in Luzerne County. The project will utilize an existing right-of-way corridor that will be expanded to accommodate the new transmission line. The new facilities and transmission lines are needed to provide additional power to the area to support future load growth due to business expansion. This proposed project will allow us to meet the growing demand for power in the region while enhancing reliability and resilience for all customers in this region.

## Frequently Asked Questions

### PPL Electric Utilities Project Details

**What are the specifics of this proposed project?**
PPL Electric Utilities plans to build approximately 12 miles of new 500 kV transmission line as well as two new switchyards in Luzerne County. The new transmission line will be designed for 500 kV operation, but will initially operate at 230 kV until increasing load growth in the area necessitates its operation at 500 kV.

The proposed Nescopeck 500 / 230 kV Switchyard will be located in Nescopeck Township, near PPL Electric's existing Sunbury-Susquehanna 500 and 230 kV transmission lines. The proposed Tomhicken 230 kV Switchyard will be located in Hazle Township, near a new customer facility, and adjacent to PPL Electric's existing Susquehanna-Harwood 230 kV transmission lines.

The approximate 12 miles of new transmission lines will interconnect the two proposed switchyards and the Harwood Substation, as well as extend power to a customer's facility. This will require two separate segments. The first segment will run between the proposed Nescopeck Switchyard and the proposed Tomhicken Switchyard. This portion of the line will be a double circuit and will be installed on the same transmission support structures. The lines will initially operate at 230 kV, but will be designed for 500 kV operation in

anticipation of continued load growth in the surrounding area. The second segment will be a single-circuit line that runs between the proposed Tomhicken Switchyard and the existing Harwood Substation.

**Has PPL Electric considered alternative routes for this transmission line?**
With every transmission project, we conduct studies and analyses to determine the best possible solution to meet the demand for electricity while having the least possible impact on the natural environment and surrounding communities. After a thorough evaluation, the proposed route, which uses an already existing transmission corridor, was determined to be the most viable route that would cause the least impact to the environment and community while still getting power to the customers who need it. There is no other route that can have less cumulative impact than this existing right-of-way corridor. In this case, alternatives would have involved creating new right-of-way corridors, which would require additional easements and cause added disruption to the surrounding area.

**What does the construction process include?**
Construction will include installation of environmental controls and access roads, clearing of any trees in 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.

**Why is this project needed?**
The new facilities and transmission lines are needed to provide additional power to the area to support future load growth, including a new customer facility. This proposed project will allow us to meet the growing demand for power in the region while enhancing reliability and ensuring that our system still delivers reliable power to customers in this region and beyond.

**What townships will the transmission line run through?**
The new transmission lines will be constructed in Nescopeck, Black Creek, Sugarloaf and Hazle Townships in Luzerne County.

The Nescopeck Switchyard will be built in Nescopeck Township while the Tomhicken Switchyard will be built in Hazle Township.

**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, these monopole structures will range in height from approximately 100 to 240 feet, with an average height of approximately 200 feet. Actual pole heights will be determined during final engineering.

**Will this project require additional right-of-way?**
Yes. The new transmission line will require the acquisition of additional right-of-way. The project will utilize an existing 100-foot-wide right-of-way corridor that will be expanded to 200 feet to accommodate the new transmission line. PPL Electric is working with landowners to purchase the necessary easements across each of the affected properties.

**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 siting of this transmission line will require Pennsylvania PUC review and approval.

**When will this project be built?**
We anticipate the entire construction process for the transmission lines and switchyards will require approximately a year and a half. With a proposed start date of spring 2026, we anticipate the project will be in-service by fall 2027.

## Working with Property Owners

**Will this project affect my property value?**
Residents who choose to expand the right-of-way width of existing easements will be fairly compensated. We have no evidence that there is a long-term effect on property values from a project like this. Additionally, this project, in part, utilizes an existing transmission line corridor.

**How is the value of the easement determined?**
We determine the value of the easement by obtaining a fair market value analysis from a certified 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 always to negotiate and reach an amicable settlement. 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.

**How many homes or displacements of people are planned or necessary?**
No displacements are necessary for this project. In certain circumstances, we may offer to purchase property where a fair and reasonable agreement can be reached with the landowner. As a public utility, we cannot condemn a house or reasonable curtilage (up to 300 feet) around a house.

**Is it true that property owners were offered $1 for an easement?**
No one has been offered $1. This reference comes from our easement agreement which lists the consideration as "$1 and other consideration." This is a common practice in real estate transactions as it helps protect the privacy of the buyer and seller's negotiated price. Otherwise, anyone could search for the easement agreement in land records and know how much the landowner was paid for the easement.

We determine the value of an easement by obtaining a fair market value analysis from a certified appraiser, and then we negotiate with the property owner to reach a mutually agreeable payment. We also consider reasonable counter offers from landowners during negotiations.

**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 that portion. 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.

**How is PPL Electric communicating with area residents and other stakeholders?**
As always, we're committed to keeping affected landowners and communities informed throughout each step of the project. Landowners can always reach out directly to their dedicated right-of-way agent with any questions they may have, and we've also established a dedicated email address, SugarloafProject@pplweb.com, for customers and stakeholder to reach out with questions and comments. Information about the project can also be found on the project website, www.sugarloafproject.com.

## 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 switchyard?**
A switchyard houses electrical infrastructure, including circuit breakers and protective devices, required to safely control the flow of high voltage power across transmission lines.

**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.

**What value does the transmission system provide to customers and the community?**


**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. Using a hairdryer exposes a person to almost three times the level of EMF as the transmission line we plan to build. 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 up to 10 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 this line?**
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.

**What are the decibel numbers for noise from a 500 kV transmission line?**
We currently utilize design standards to ensure that newly constructed or rebuilt 500 kV transmission lines are engineered to operate at or below 50 decibels (dB) at the edge of the right-of-way. This level is equivalent to a common household refrigerator, according to Yale University.

**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 meet all environmental requirements and regulations under the terms of our permits.

**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 the current wetlands, are you going to build new ones elsewhere?**
PPL Electric plans to meet Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers regulations that exist for conducting work in wetland areas.

**Will PPL Electric Utilities need to cut down trees to build this project?**
Yes. In some cases, there will be tree removal where necessary to maintain a safe path for the power line.

**Why does PPL Electric Utilities use herbicides to maintain its right-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

- PPL Electric Utilities Sugarloaf 500 kV Project Webpage