



TUTTLE AREA

POWER IMPROVEMENTS PROJECT

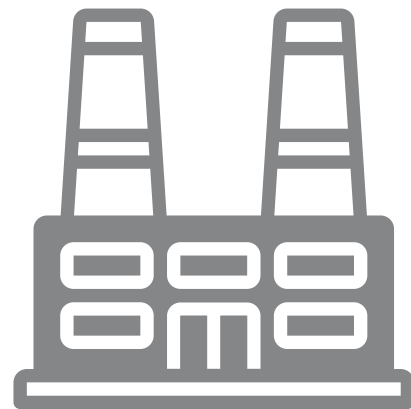
WELCOME TO OUR VIRTUAL OPEN HOUSE

As a result of the COVID-19 pandemic and social distancing recommendations made by the Centers for Disease Control and Prevention (CDC), PSO invites you to attend this virtual open house in order to minimize in-person contact. PSO remains committed to listening to your concerns and answering your questions, but we are also committed to keeping our customers and employees safe and healthy. We welcome your feedback via telephone and email as we strive to make the most informed decisions possible.

HOW THE SYSTEM WORKS

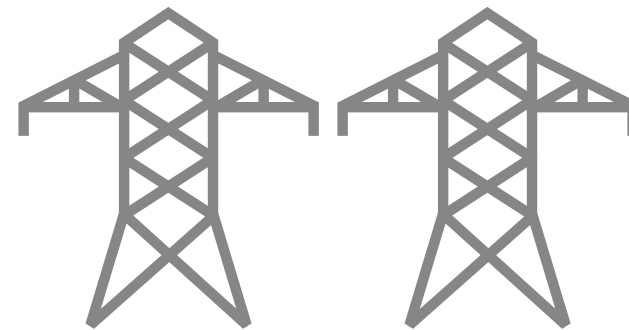
HIGH VOLTAGE

LOCAL TRANSMISSION >>



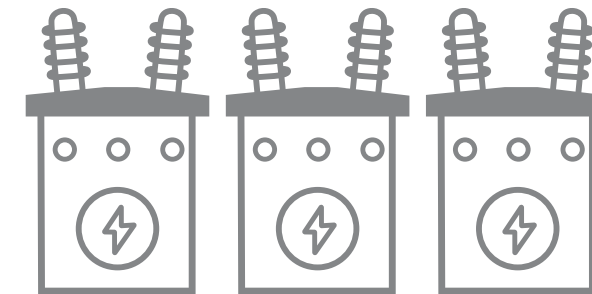
1) GENERATION STATIONS

PSO produces electricity at coal, natural gas, and wind power stations and then transports it long distances over transmission lines.



2) EHV TRANSMISSION

Extra-high Voltage (EHV) electric transmission lines are generally 345-kilovolt (kV) on PSO's system.



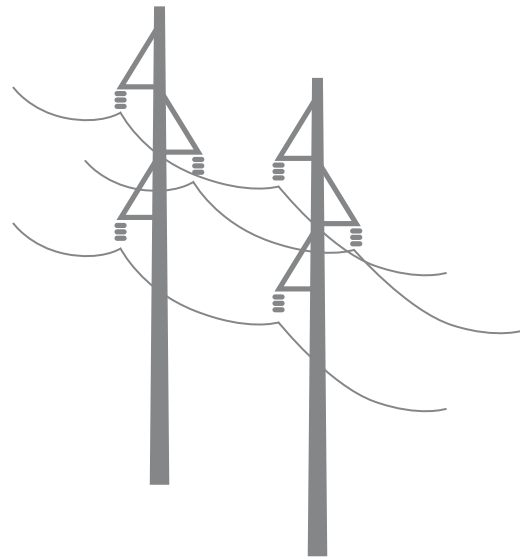
3) SUBSTATIONS

Substations direct the flow of electricity and either decrease or increase voltage levels for transport.

HOW THE SYSTEM WORKS

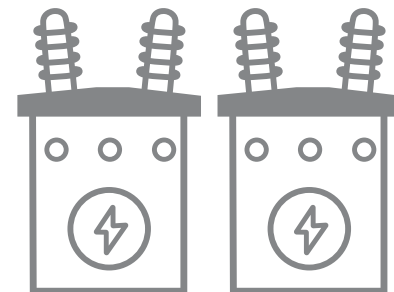
DISTRIBUTION >>

LOCAL TRANSMISSION



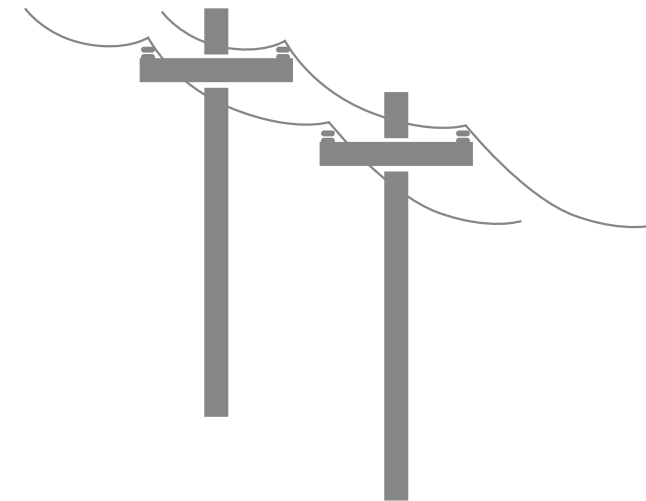
4) LOCAL TRANSMISSION

PSO typically uses 69-kV and 138-kV transmission lines to move power shorter distances - for example, to different parts of a city or county.



5) SUBSTATION

Substations transform 69-kV and 138-kV electricity into lower distribution level voltages such as 34.5 kV, 12 kV, or 7.2 kV.

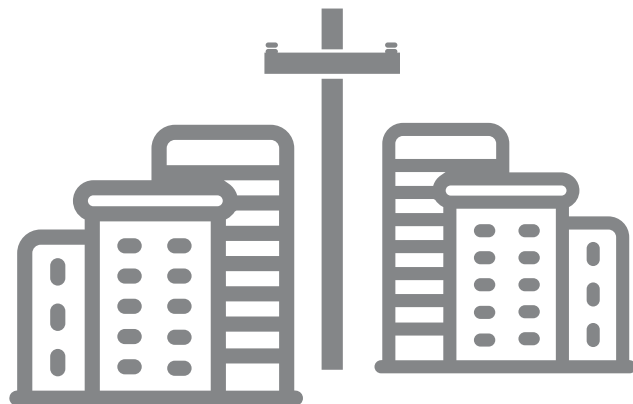


6) PRIMARY DISTRIBUTION

These main lines (also called circuits) connect substations to large parts of the community.

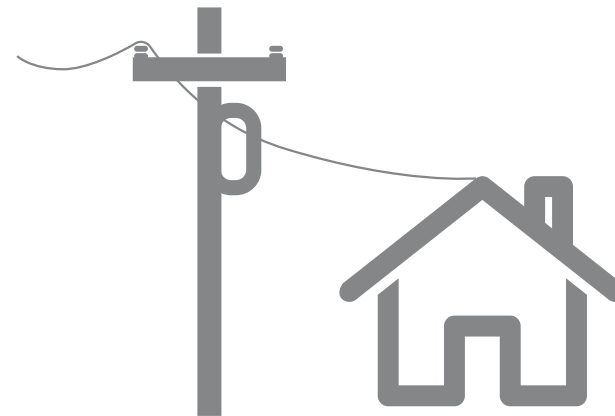
HOW THE SYSTEM WORKS

DISTRIBUTION



7) LATERAL DISTRIBUTION

These smaller capacity lines deliver electricity to neighborhoods and other smaller groups of customers.



8) INDIVIDUAL SERVICE

Smaller transformers step down voltage to levels customers can use -- typically 120 or 240 volts for individual residences.

TO USE AN ANALOGY, ELECTRIC TRANSMISSION IS SIMILAR TO OUR NATIONAL ROAD SYSTEM. THREE KINDS OF POWER LINES EXIST BETWEEN POWER PLANTS AND HOMES AND BUSINESSES:

- Extra-high Voltage (EHV) lines are like electrical interstate highways.
- High-voltage local transmission lines are like four-lane roads.
- Distribution lines are like two-lane roads that eventually connect to your driveway.

PROJECT NEED & BENEFITS

WHY IS THE PROJECT IMPORTANT TO OUR COMMUNITY?

ENHANCED RELIABILITY

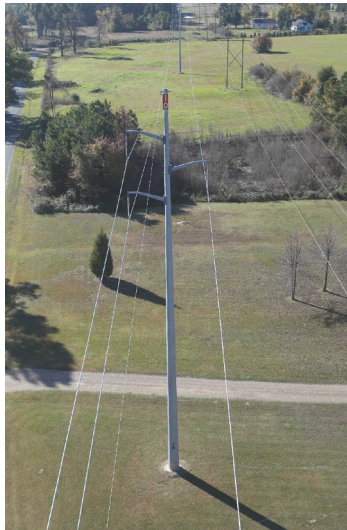
The Tuttle Area Power Improvements Project increases service reliability for customers by adding capacity to the local power grid and decreases the likelihood of large, community-wide power outages.

ACCOMMODATING GROWTH

The project provides another power provider to meet the needs of the growing community.

ROUTING PROCESS

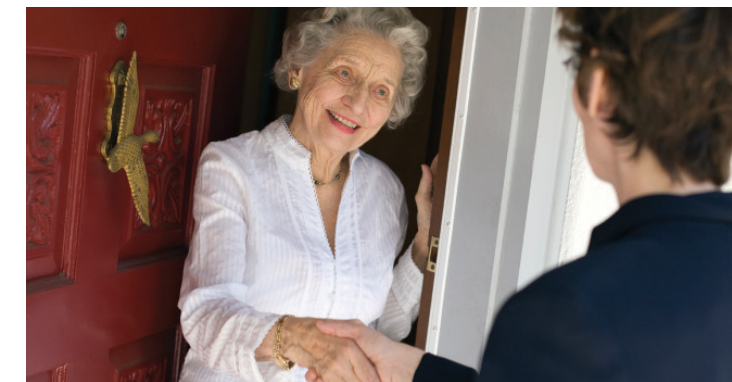
At PSO, we strive to strike a balance between building new power lines that power our homes and economy while also protecting the environment.



WHEN PLANNING POWER LINE PROJECTS*, PSO PROJECT TEAMS REVIEW:

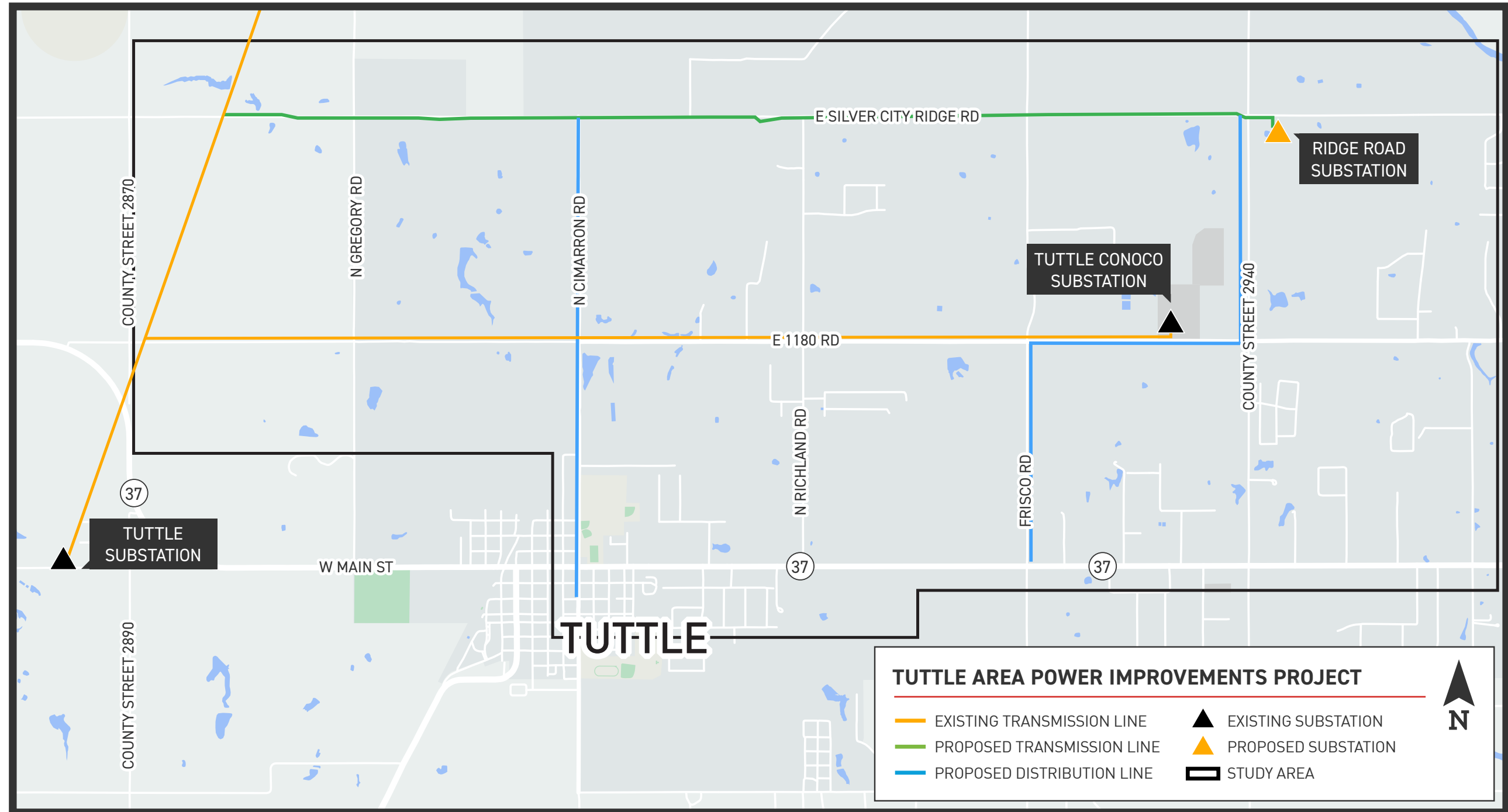
- Public and private land use, both current and proposed
- Aesthetics and visual impacts
- Water quality, including potential impacts on wetlands, streams and water bodies
- Wildlife, vegetation and fisheries, including threatened and endangered species
- Soils and geology
- Communities and neighborhoods, growth and development
- Historic and archaeological sites
- Transportation and roads

* Existing power lines that require upgrade or replacement are generally built on the same or an expanded right-of-way following the same line corridor.

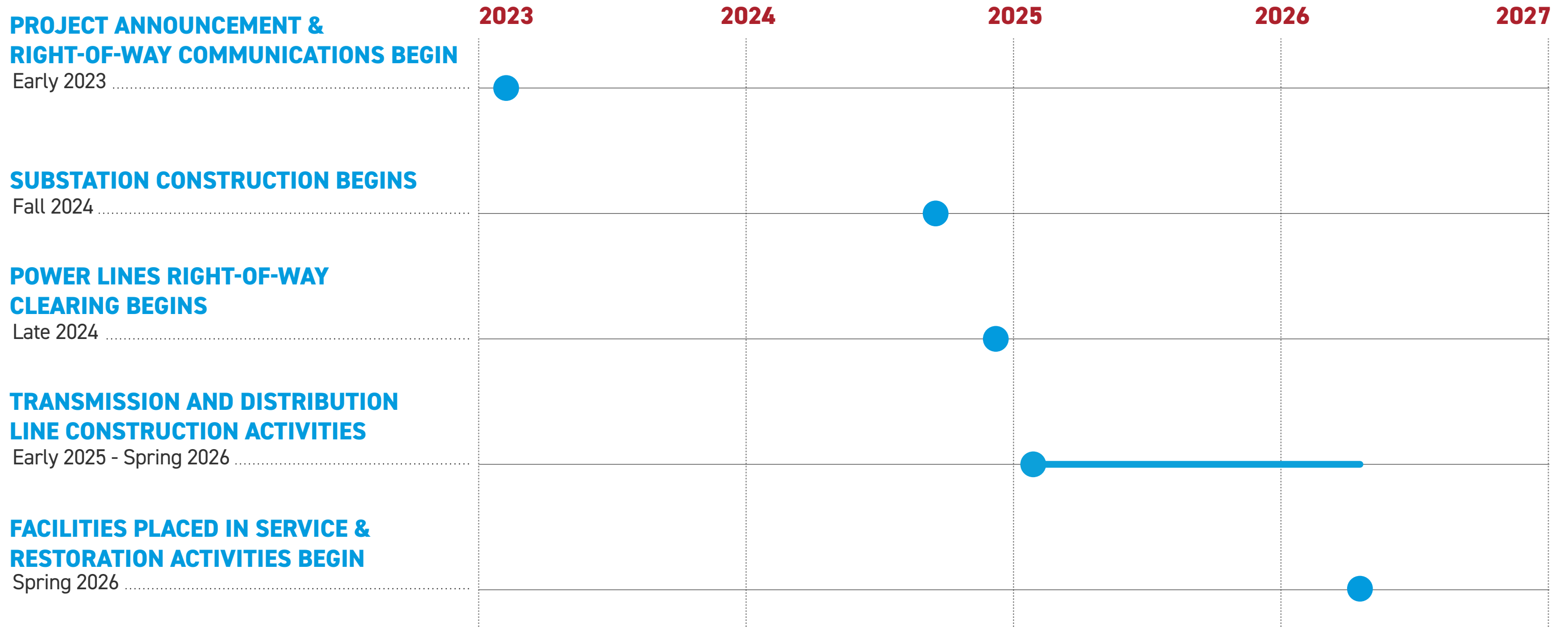


PSO project teams welcome your feedback throughout the process. Once a project is identified, we work individually with property owners to locate the power line right-of-way and address concerns. PSO representatives also identify and comply with all required local, state and federal permitting agencies.

PROJECT MAP

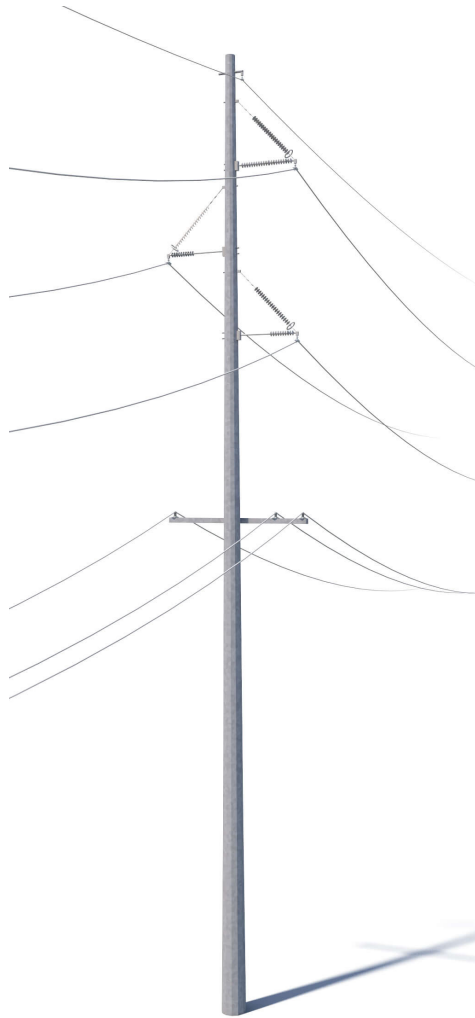


PROJECT SCHEDULE



*Timeline subject to change.

TYPICAL STRUCTURES



Proposed
Transmission Structure



Proposed
Distribution Structure

PSO representatives plan to install steel single poles for the transmission line and wooden single poles for the distribution line on this project.

Transmission Structures

Proposed Typical Height: **Approximately 95 feet***

Proposed Typical Distance Between Structures: **Approximately 600 feet***

Proposed Typical Right-of-Way Width: **100 feet**

Distribution Structures

Proposed Typical Structure Height: **Approximately 45 feet***

Proposed Typical Distance Between Structures: **Approximately 250 feet***

Proposed Typical Right-of-Way Width: **20 feet**

*Exact structure design, height and right-of-way requirements may vary.

RIGHT-OF-WAY

PSO HAS TWO KEY PHILOSOPHIES THAT PERTAIN TO POWER LINE RIGHTS-OF-WAY:



1 Routes should cause the least possible disturbance to people and the environment.



2 Property owners should be fairly compensated for any land rights that must be acquired.

RIGHT-OF-WAY

PSO studies the land and, wherever possible, proposes routes that reduce impacts on property owners. PSO reaches out to landowners in the following ways:

TO GAIN RIGHT-OF-ENTRY TO BEGIN:

- Environmental assessments
- Appraisal work
- Land surveying, soil boring and other field activities
- Cultural and historic resource reviews

TO SECURE RIGHT-OF-WAY AND COMMUNICATE:

- Landowner compensation
- Terms and conditions of easement
- Width of the right-of-way

TO OUTLINE PSO'S CONSTRUCTION PROCESS WITH A SPECIFIC FOCUS ON:

- Property restoration
- Damage mitigation as appropriate

CONSTRUCTION FAQ

This project improves service reliability for customers and provides another power provider to meet the needs of the growing community.

PROJECT COMPONENTS

The project involves:

- Building about 5 miles of 138-kilovolt (kV) transmission line
- Building about 8.5 miles of 13-kV distribution line
- Building the Ridge Road Substation

TRAFFIC CONTROL

PSO representatives work to ensure public safety and minimize inconveniences during construction. Crews plan to:

- Close road lanes in residential areas
- Use flaggers and signs to aid traffic flow on city streets during the day
- Open road lanes at night if safety allows

DAILY CONSTRUCTION SCHEDULE

Construction typically takes place Monday - Sunday during daytime hours (7 a.m. - 7 p.m.), weather permitting.

PUBLIC SAFETY TIPS

- Keep your distance from construction workers and equipment
- Stay outside of temporary safety barriers
- Be aware of uneven or slippery surfaces
- Slow down when driving in the area and make sure your headlights are on
- Watch for construction signs
- Watch for road closures and traffic detours
- Follow flaggers' instructions

WHAT TO EXPECT DURING CONSTRUCTION

CONSTRUCTION SITE PREPARATION: Summer 2023 - Fall 2023

Crews mark utilities and pole locations along the power line route. Crews may remove fences, trees and other obstructions from the right-of-way area as needed for access during construction.

Crews also:

- Install fences around the construction area for the public's safety
- Remove parts of sidewalk at various pole locations
- Remove soil to make room for the larger bases of the new poles

CONSTRUCTION ACTIVITY: Fall 2023 - Spring 2024

Crews place pole sections along the right-of-way corridor prior to pole installation.

At most pole locations, crews:

- Assemble the pole and place it near the installation area
- Install and stabilize the base of the pole
- Install and secure the pole
- Install wires on the poles along the power line route

FACILITIES PLACED IN SERVICE: Spring 2024

Crews place the facilities in service after finishing pole and wire installation.

POST-CONSTRUCTION AND SITE RESTORATION: Spring 2024 - Summer 2024

PSO crews follow construction crews over the duration of the project to restore properties to as close to their pre-construction condition as possible. Right-of-way agents also work with landowners to address any property damage.

VEGETATION MANAGEMENT



THE GOALS OF PSO'S VEGETATION MANAGEMENT PROGRAM ARE TO:

- Protect our system and minimize outages
- Minimize any adverse environmental impacts
- Ensure compliance with all applicable laws and regulations
- Perform our work as safely as possible
- Maintain a positive relationship with land owners and the public

WHAT IS VEGETATION MANAGEMENT?

The practice of controlling the growth of trees and other woody stemmed vegetation in line corridors and around substations, while maintaining respect for the environment.

WHY IS IT DONE?



To minimize power outages caused by trees and other plants coming into contact with power lines.



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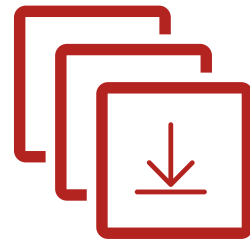
POWER IMPROVEMENTS PROJECT

THANK YOU!

Thank you for visiting the project virtual open house. For more information and project updates please visit the project website, or contact us with any additional questions.



**REPLAY
OPEN HOUSE**



**DOWNLOAD
SLIDE DECK**



CONTACT US



**VISIT PROJECT
WEBSITE**