



CATOOSA - VERDIGRIS

TRANSMISSION LINE REBUILD PROJECT

WELCOME TO OUR VIRTUAL OPEN HOUSE

PSO representatives invite you to attend this open house to learn more. We welcome your feedback via telephone and email as we strive to make informed decisions.



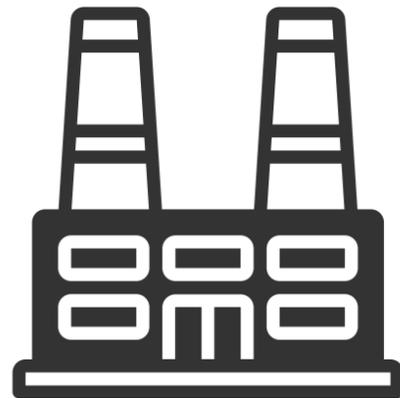
TO NAVIGATE THE SLIDES

USE THE ARROW KEYS ON YOUR KEYBOARD, SWIPE ON MOBILE, OR USE THE ARROWS IN THE LOWER-RIGHT CORNER

HOW THE SYSTEM WORKS

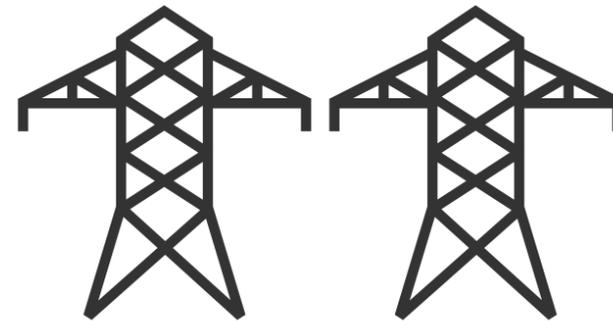
HIGH VOLTAGE

LOCAL TRANSMISSION >>



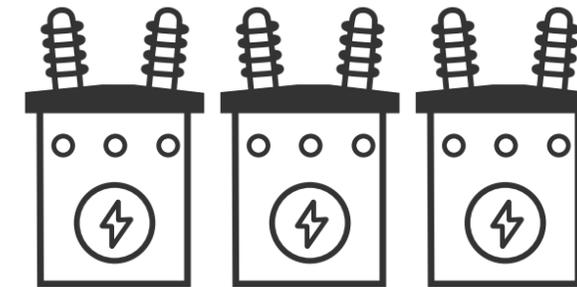
1) GENERATION STATIONS

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 on PSO's system.



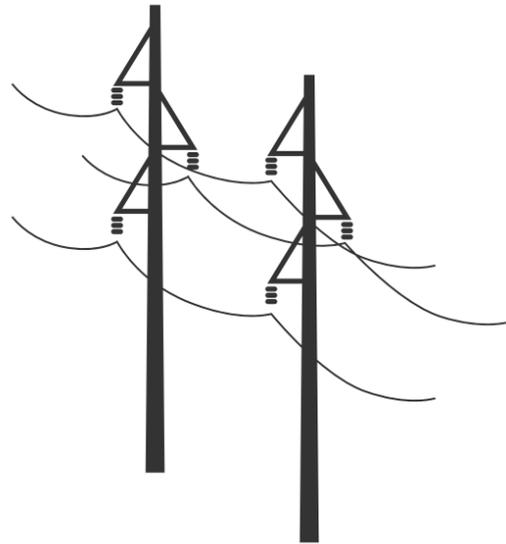
3) SUBSTATIONS

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

HOW THE SYSTEM WORKS

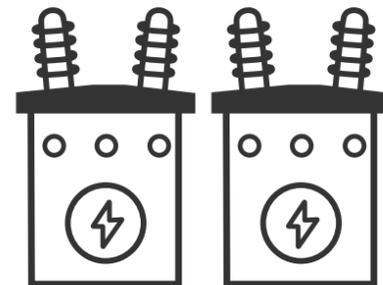
LOCAL TRANSMISSION

DISTRIBUTION >>



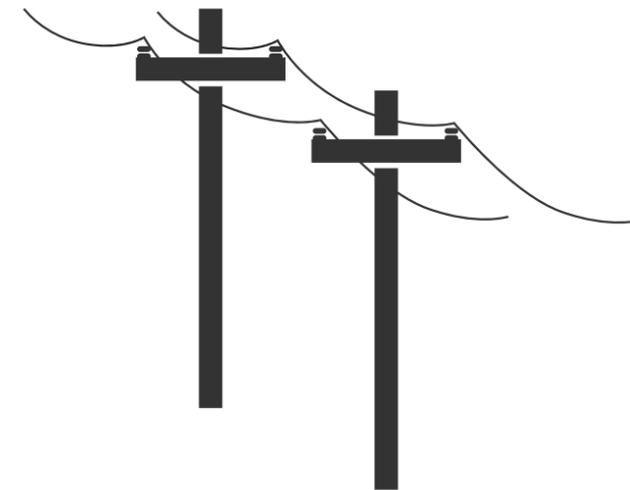
4) LOCAL TRANSMISSION

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.

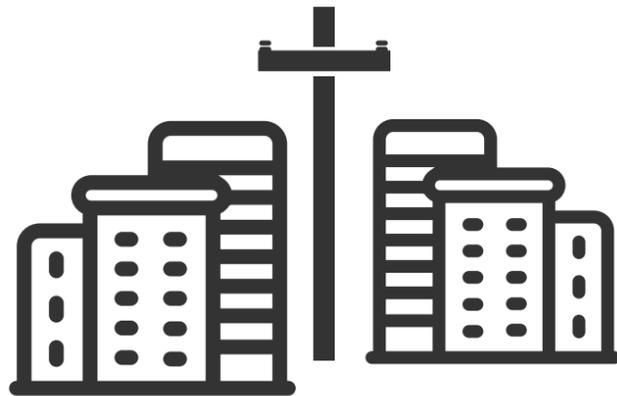


6) PRIMARY DISTRIBUTION

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

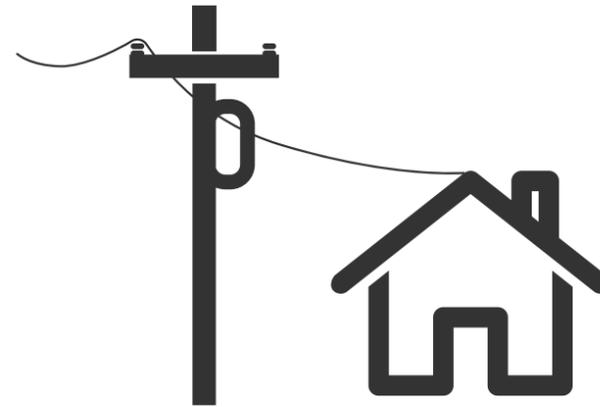
HOW THE SYSTEM WORKS

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?

ENHANCING RELIABILITY

Since 2015, this line experienced 13 outages resulting in service interruption for area customers. The project enhances system reliability by strengthening the line against severe weather impacts and decreasing the likelihood of widespread community power outages.

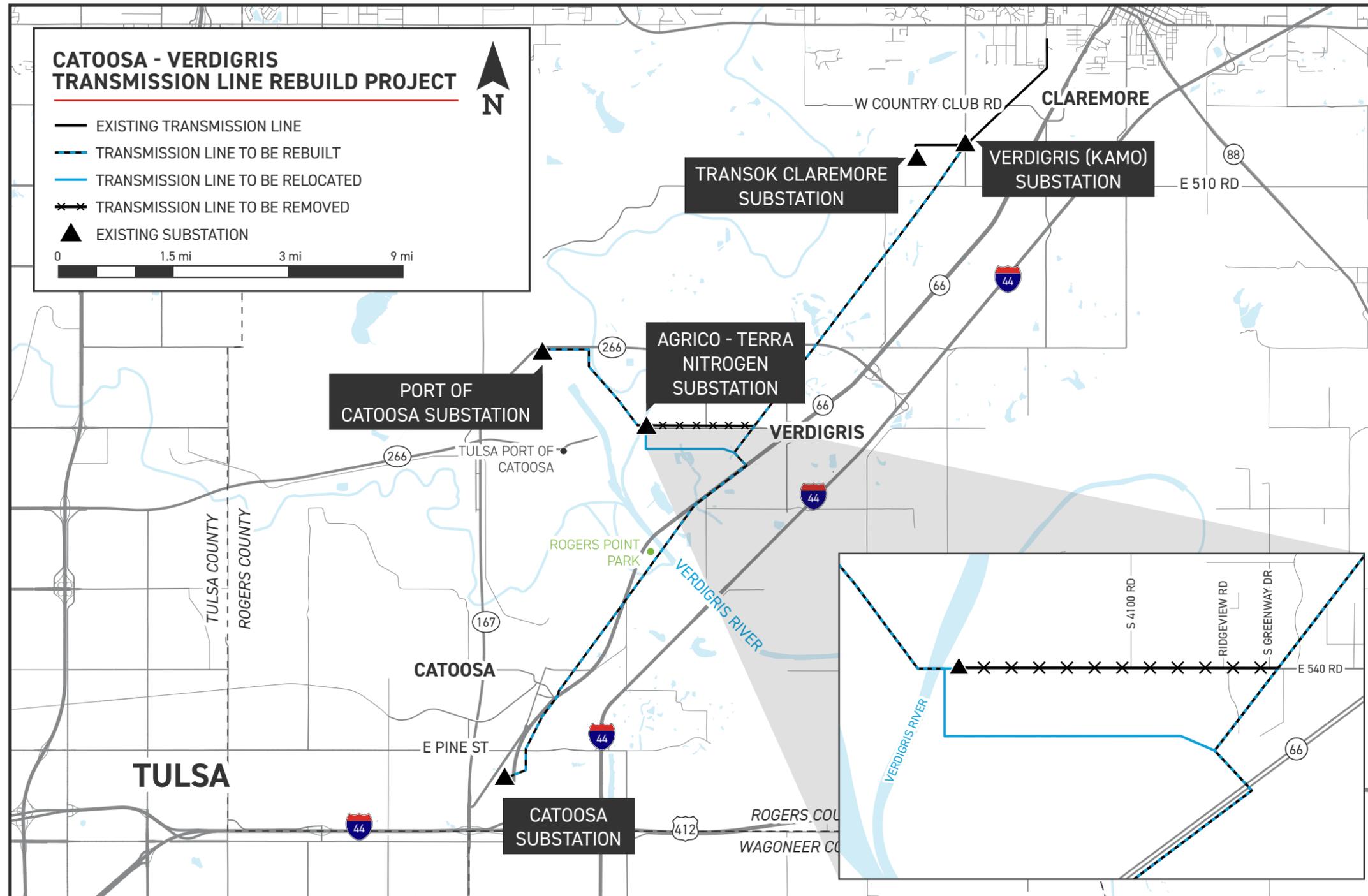
MEETING MODERN STANDARDS

The project upgrades the line to meet modern engineering and operational standards by replacing deteriorating wooden poles from 1964 with modern steel poles.

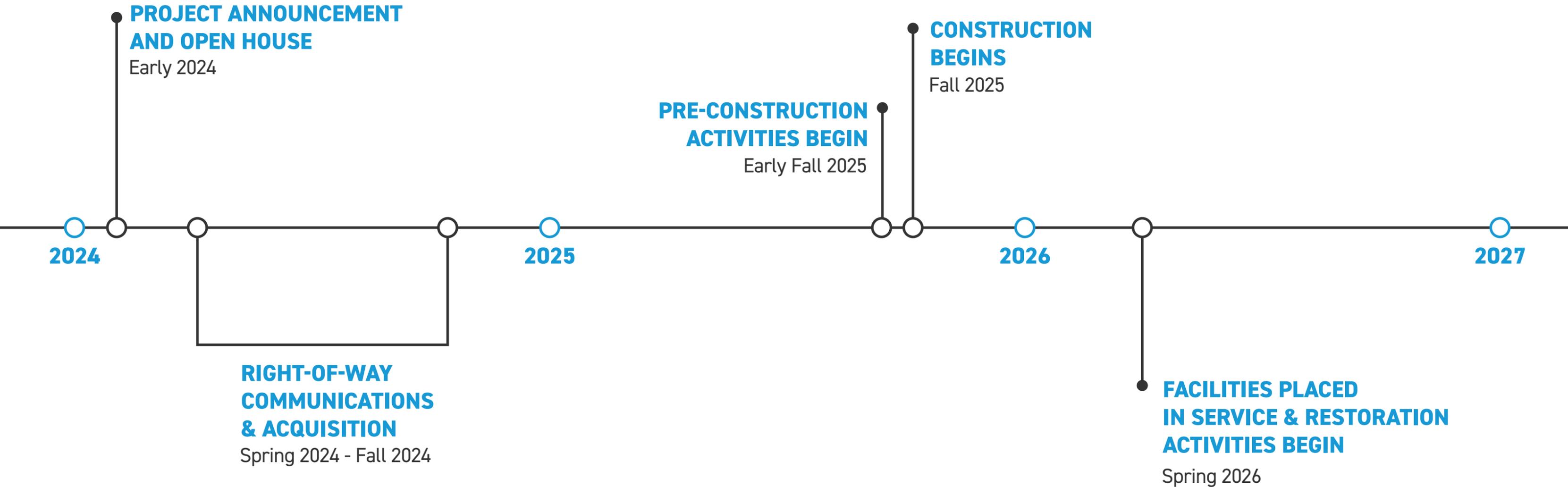
ACCOMMODATING FUTURE GROWTH

The project supports the area's growing electrical load and future economic development.

PROJECT MAP



PROJECT SCHEDULE



*Timeline Subject to Change.

PROPOSED STRUCTURES



PSO representatives plan to use steel single poles on this project.

Typical Structure Height: **Approximately 90 feet***

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

*Pole designs, heights and right-of-way requirements may vary based on structures and vegetation near the line route

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 below grade study
- 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

The project upgrades the transmission line to meet current standards by replacing deteriorating wooden poles from 1964 with modern steel poles. This strengthens the line against severe weather impacts and reduces the likelihood of sustained, community-wide power outages.

PROJECT COMPONENTS & BENEFITS

The project involves:

- Rebuilding about 11 miles of the 138-kilovolt Catoosa - Northeastern Power Station transmission line between PSO's Catoosa Substation in Catoosa and KAMO Power's Verdigris Substation near Claremore
- Rebuilding about 3 miles of lines connecting other substations to the Catoosa - Northeastern Power Station transmission line
- Upgrading substation equipment along the power line route

DAILY CONSTRUCTION SCHEDULE

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

TRAFFIC CONTROL

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

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

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 posted signs
- Watch for road closures and traffic detours
- Follow flaggers' instructions

CONSTRUCTION FAQ

WHAT TO EXPECT DURING CONSTRUCTION

CONSTRUCTION CORRIDOR PREPARATION: EARLY FALL 2024 - FALL 2024

Crews mark utilities and pole locations along the power line route. Crews may remove fences, woody-stemmed vegetation and other obstructions from the right-of-way area where necessary.

Crews also:

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

CONSTRUCTION ACTIVITY: FALL 2024 - SPRING 2025

Construction vehicles will be seen traveling up and down the right-of-way corridor. 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
- Remove existing structures and wires

FACILITIES PLACED IN-SERVICE: SPRING 2025

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

POST-CONSTRUCTION AND SITE RESTORATION: LATE 2024 - SUMMER 2025

Restoration crews follow construction crews throughout the project to restore sidewalks and other neighborhood properties to as close to their pre-construction condition as possible. Right-of-way agents also work with landowners to address any other property damages.

*Schedule subject to change based on weather or other factors

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

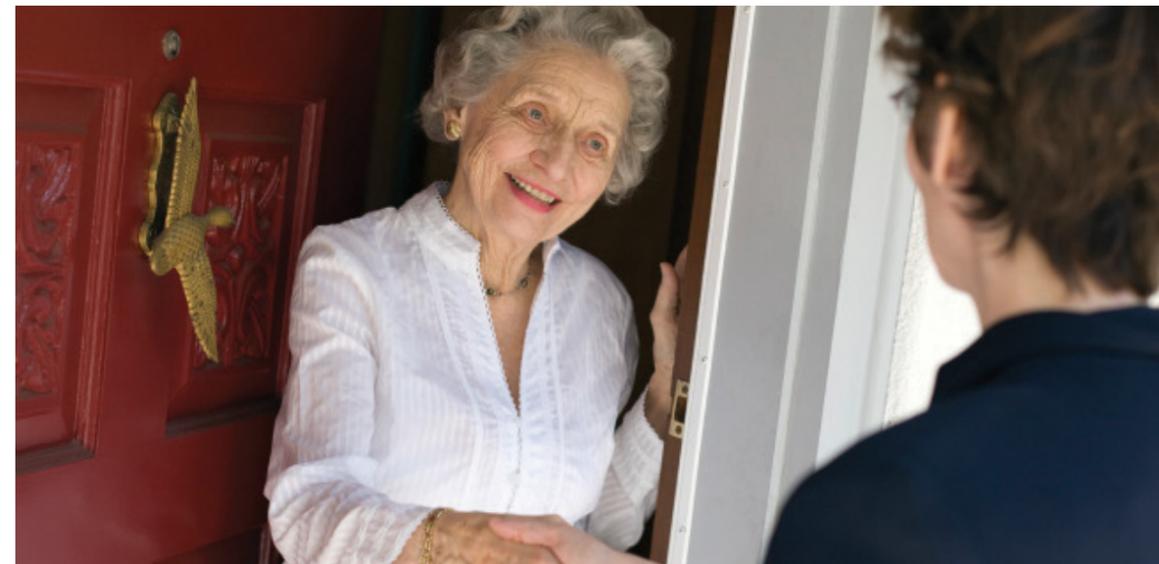
WHAT IS VEGETATION MANAGEMENT?

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.

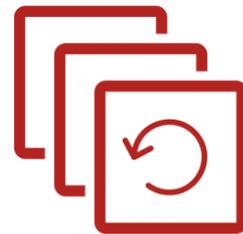


CATOOSA - VERDIGRIS

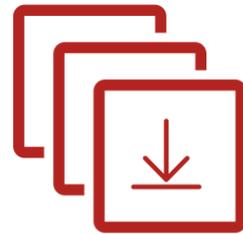
TRANSMISSION LINE REBUILD PROJECT

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.



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OPEN HOUSE**



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