



# SOUTH CHICKASHA

## TRANSMISSION IMPROVEMENTS PROJECT

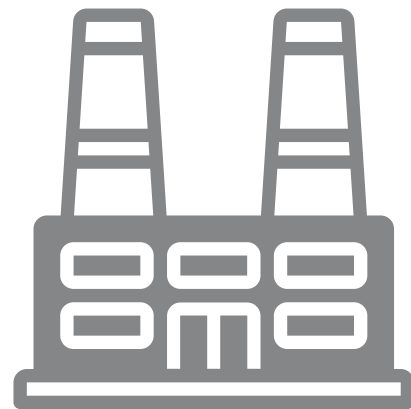
### WELCOME TO OUR VIRTUAL OPEN HOUSE

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

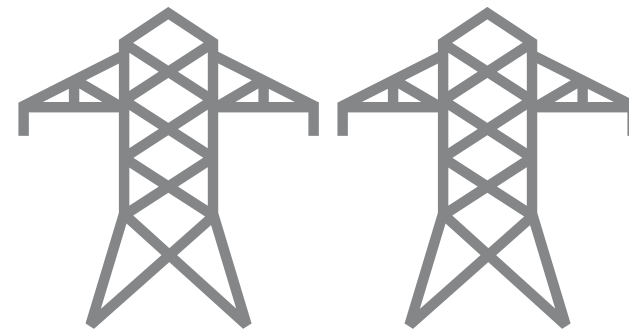
## HIGH VOLTAGE

LOCAL TRANSMISSION >>



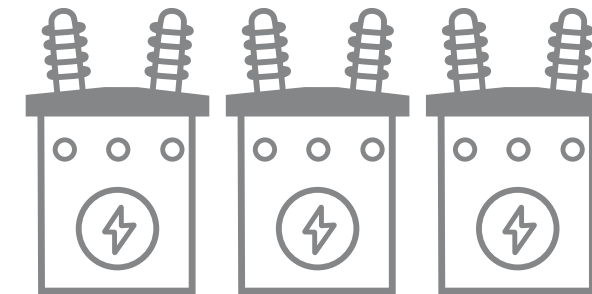
### 1) GENERATION STATIONS

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.



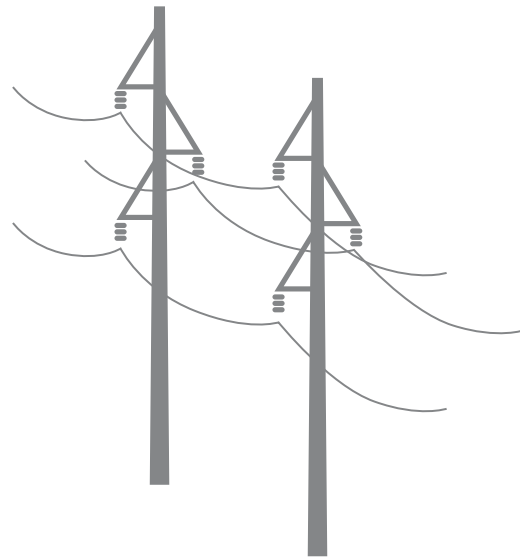
### 3) SUBSTATIONS

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

# HOW THE SYSTEM WORKS

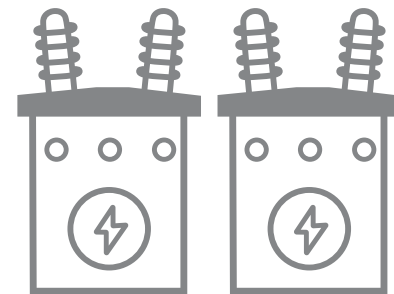
DISTRIBUTION >>

## LOCAL TRANSMISSION



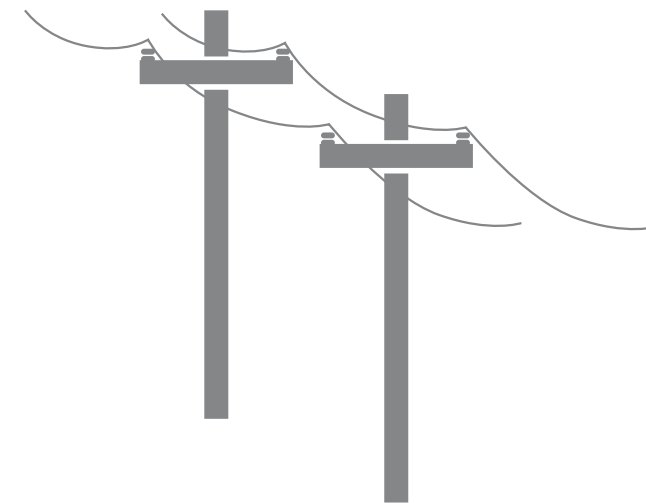
### 4) LOCAL TRANSMISSION

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.

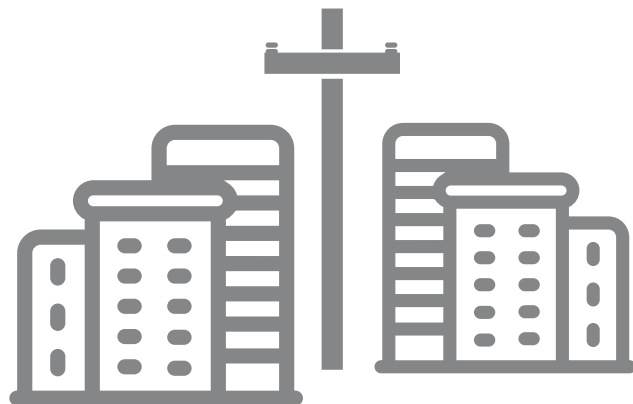


### 6) PRIMARY DISTRIBUTION

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

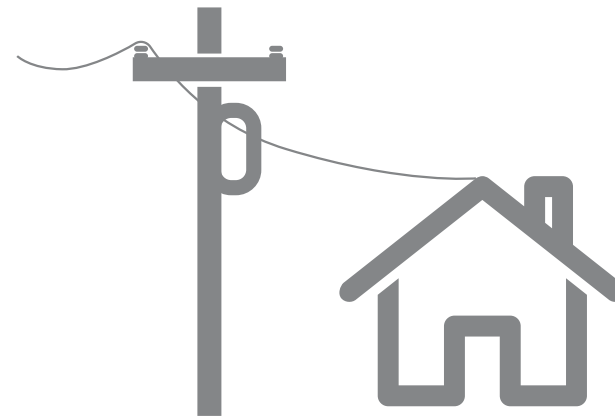
# HOW THE SYSTEM WORKS

## 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 South Chickasha Transmission Improvements Project upgrades the power line to provide more reliable electrical service to area customers.

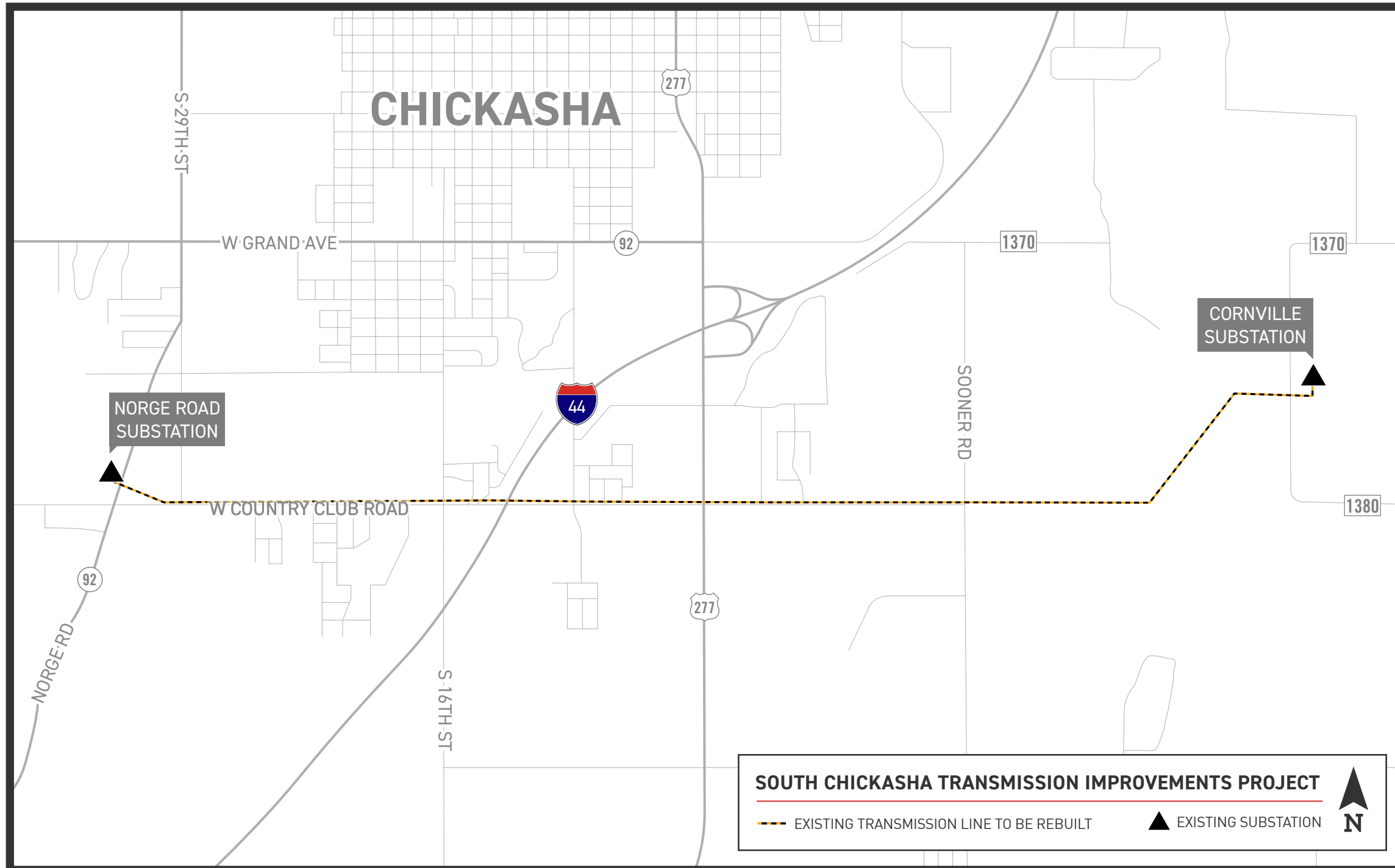
### UPGRADED INFRASTRUCTURE

The project replaces wooden poles from the 1960s with modern steel poles to reduce maintenance frequency, strengthen the line against weather impacts and decrease the likelihood of larger, community-wide power outages.

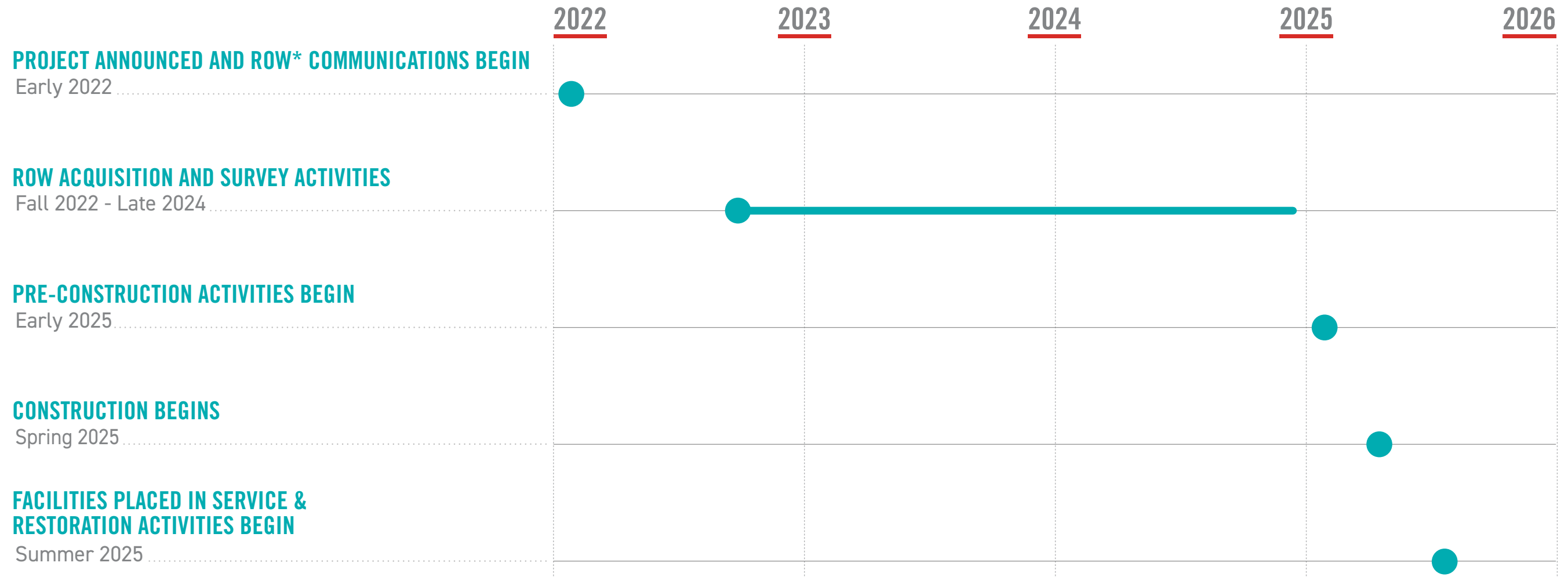
### MEETING FUTURE NEEDS

The system needs to be upgraded in order to meet current and future power demands in the area. A more robust wire on this line will better accommodate increased electrical load flow. At PSO, we are committed to serving customers across Oklahoma by investing in a reliable, resilient grid.

# PROJECT MAP



# PROJECT SCHEDULE



\*ROW: Right-of-Way

\*\* Timeline subject to change

# TYPICAL STRUCTURES

## CURRENT VS. PLANNED

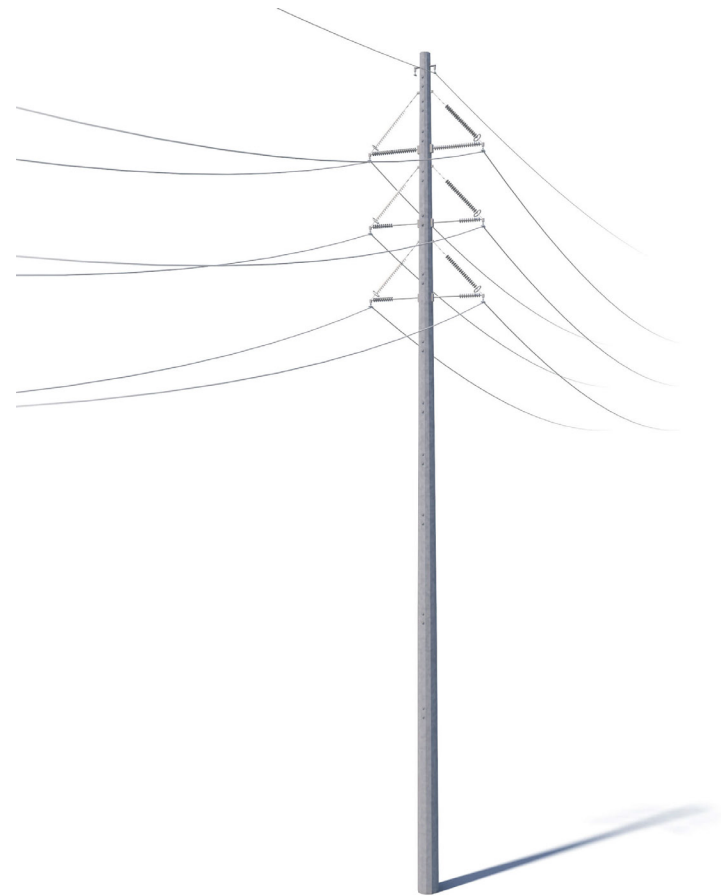
Typical structure height: \*Approximately 90 feet  
Typical distance between structures: \*Approximately 600 feet

Current structure material: wood  
Proposed structure material: steel

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



CURRENT STRUCTURE



PLANNED STRUCTURE



# 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

# 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.



# CONSTRUCTION FAQ

The South Chickasha Transmission Improvements Project involves rebuilding about 5 miles of 138-kilovolt power line in Grady County to improve electric reliability for area customers.

## PROJECT COMPONENTS

The project involves replacing wooden poles with steel poles along a 5-mile, 138-kilovolt power line between PSO's Cornville and Norge Road substations.

## TRAFFIC CONTROL

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

- Occasionally 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: Early 2023 - Early Spring 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 sidewalks around various pole locations
- Remove soil to make room for the larger bases of the new poles

### CONSTRUCTION ACTIVITY: Early Spring 2023 - Late Spring 2023

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

At most pole locations, crews:

- Assemble the new pole and place it near the installation area
- Remove existing wires and other equipment from the existing poles
- Remove the existing poles
- Install and stabilize the base of the new pole
- Install and secure the new pole
- Install new wires on the new poles along the power line route

### FACILITIES PLACED IN SERVICE: Late Spring 2023

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

### POST-CONSTRUCTION AND SITE RESTORATION: Late Spring 2023 - Summer 2023

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.

# **SOUTH CHICKASHA**

## **TRANSMISSION 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**