GREGORY AREA
TRANSMISSION IMPROVEMENTS PROJECT

WELCOME TO OUR VIRTUAL OPEN HOUSE

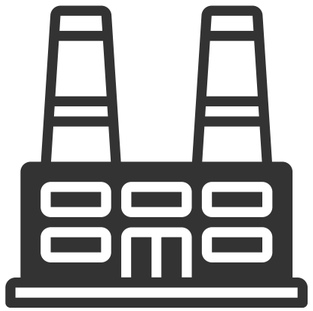
AEP Texas representatives invite you to attend this virtual open house to learn more about the project from team members and gather input from you as we develop project plans.

We welcome your feedback via the project website, telephone, email and mail as we strive to make the most informed decisions possible.

HOW THE SYSTEM WORKS

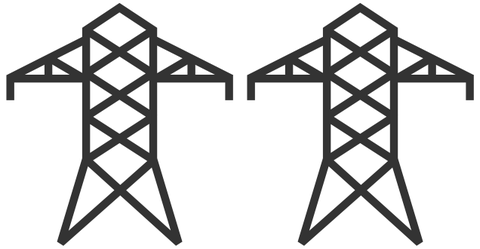
HIGH VOLTAGE

LOCAL TRANSMISSION >>



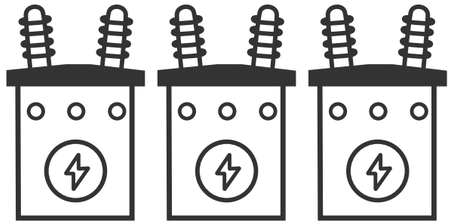
1) GENERATION STATIONS

Utilities produce electricity at coal, natural gas, nuclear, wind and hydro-electric 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), 138 kV, and 69 kV on AEP Texas' system.



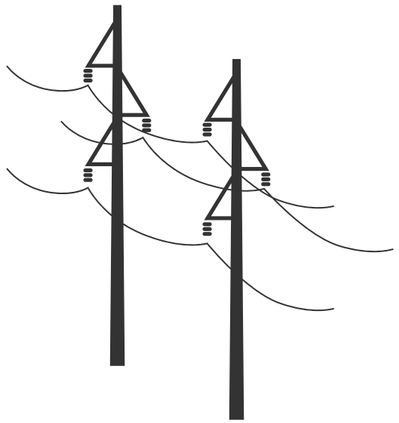
3) SUBSTATIONS

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

HOW THE SYSTEM WORKS

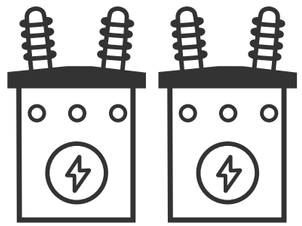
LOCAL TRANSMISSION

DISTRIBUTION >>



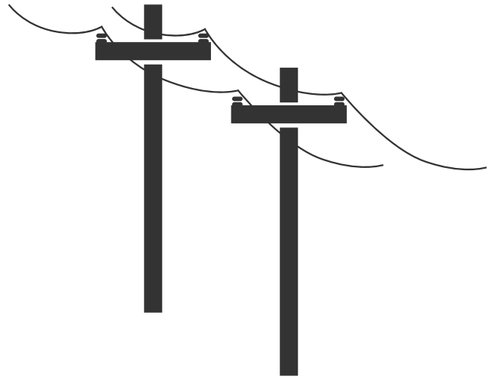
4) LOCAL TRANSMISSION

AEP Texas typically uses 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.

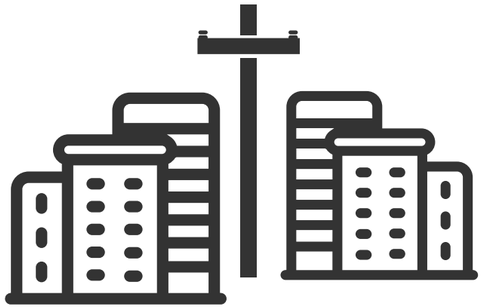


6) PRIMARY DISTRIBUTION

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

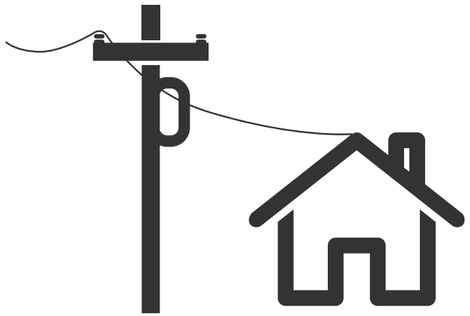
HOW THE SYSTEM WORKS

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 120/240 volts is typical for an individual residence.

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?

MODERN EQUIPMENT

The proposed project replaces deteriorating equipment from the 1970s addressing age-related conditions on the power line that can lead to system outages for customers.

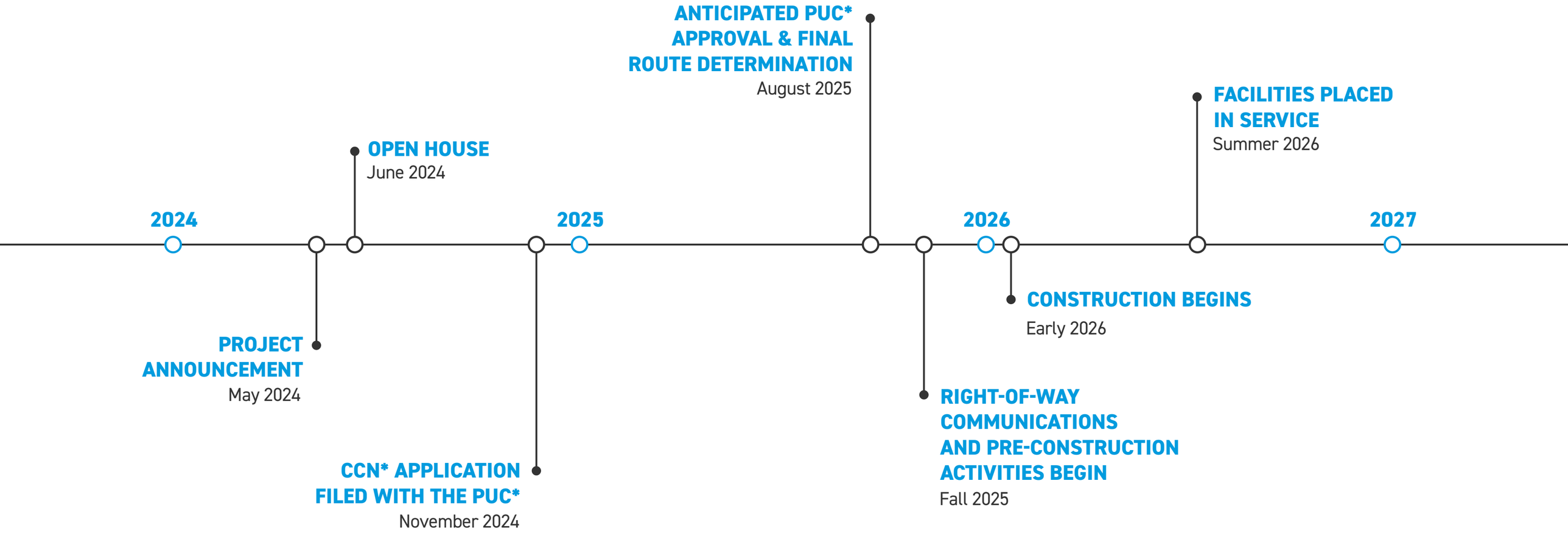
IMPROVED RELIABILITY

The transmission improvements modernize the electric system to allow more flexibility to address the area's growing power demand and ensures reliable power, reducing the likelihood and duration of outages for area customers.

STRENGTHENS LOCAL GRID

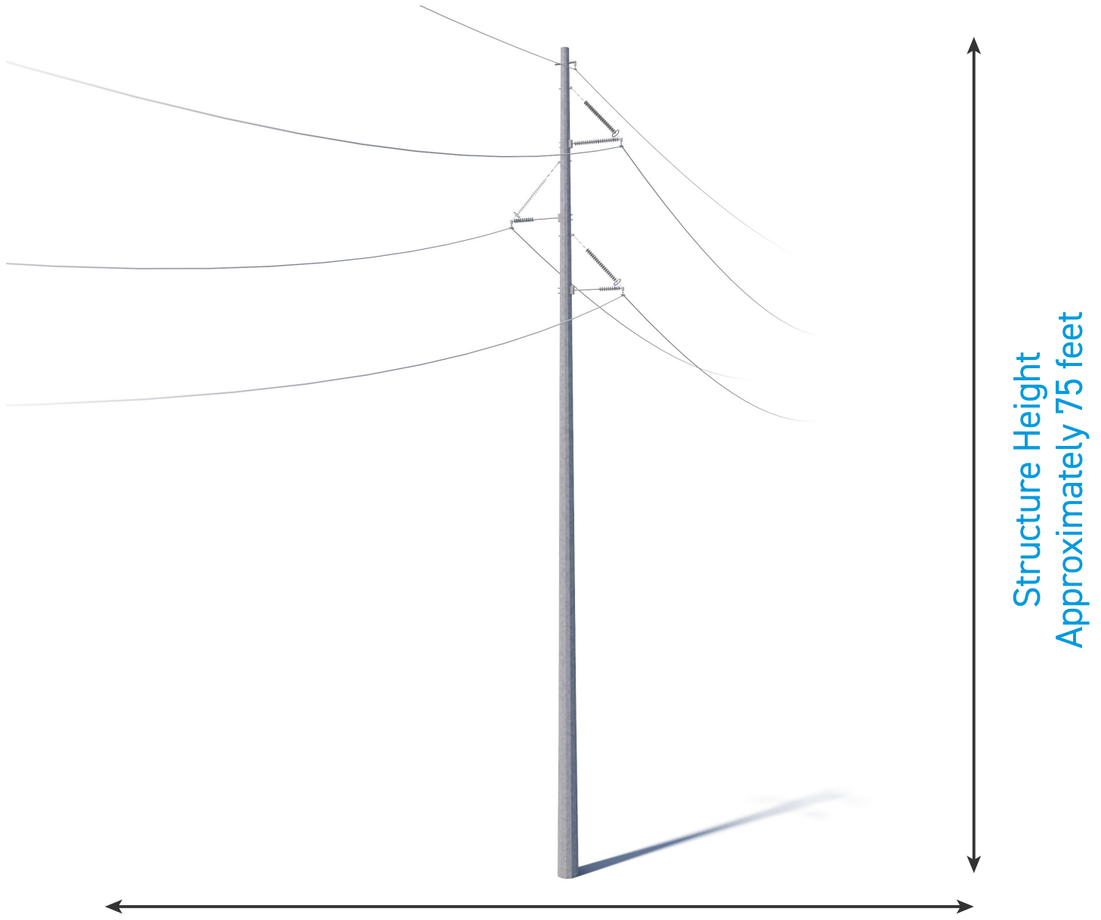
The proposed upgrades ensure safe and reliable electric service and meet current engineering and safety standards.

PROJECT SCHEDULE



*CCN: Certificate of Convenience and Necessity; PUC: Public Utility Commission of Texas
**Timeline Subject to Change.

PROPOSED STRUCTURES



AEP Texas crews plan to install single concrete poles on this project.

Typical Structure Height: Approximately 75 feet

Typical Distance Between Structures: Approximately 400 feet

Typical Right-of-Way Width: Approximately 100 feet

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

RIGHT-OF-WAY

AEP TEXAS 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

AEP Texas studies the land and, wherever possible, proposes routes that reduce impacts on property owners. AEP Texas 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 AEP TEXAS' CONSTRUCTION PROCESS WITH A SPECIFIC FOCUS ON:

- Property restoration
- Damage mitigation as appropriate

VEGETATION MANAGEMENT

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.

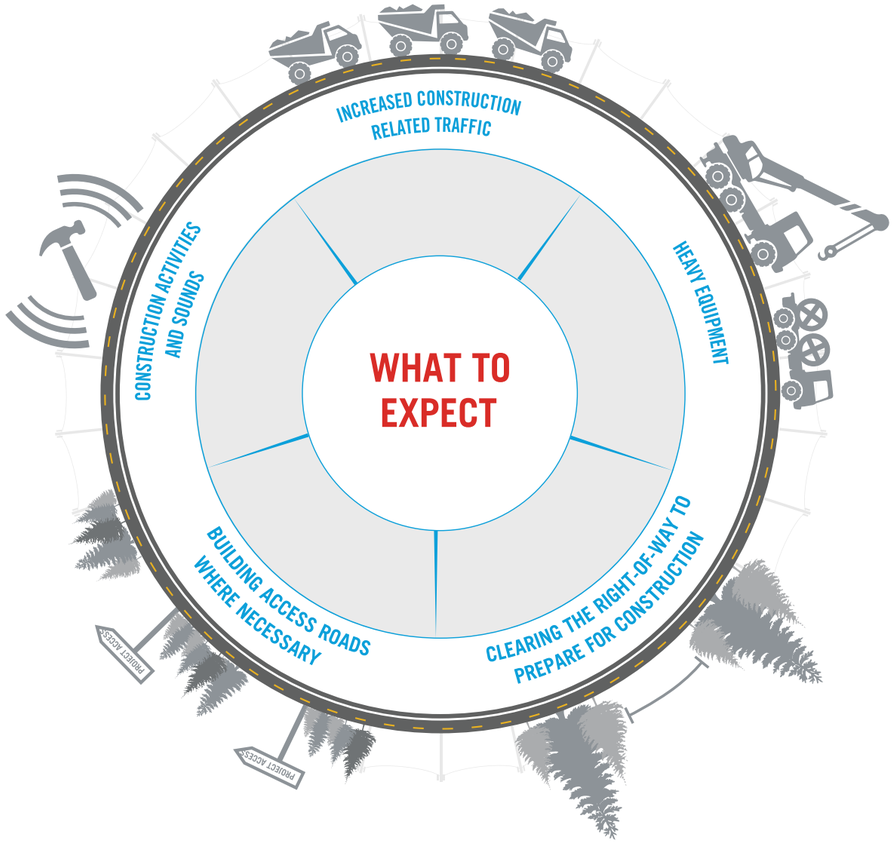
WHY IS IT DONE?

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

THE GOALS OF AEP TEXAS' 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

CONSTRUCTION PROCESS



AEP Texas understands the work related to transmission grid improvements can sometimes be an inconvenience. That's why we make every effort during the construction process to be respectful of the environment and our neighbors, while safely working to ensure reliable electric service.

AEP Texas plans to work with individual property owners throughout the construction process. Team members will provide details of upcoming work and listen to customer feedback on how we can lessen the impact of our work. In the event damages should occur during the construction process, we will work to restore property as close to its original state as possible.

TRANSMISSION ROUTING PROCESS

ENVIRONMENTAL ASSESSMENT & ROUTING STUDY:

DEFINE STUDY AREA

- Based on the end points for the transmission line
- Large enough for an adequate number of geographically diverse routes

IDENTIFY ROUTING CONSTRAINTS

- Obtain aerial photos of the study area
- Request information from federal, state, and local agencies
- Gather information regarding natural, cultural, and human resources
- Gather data from published literature and on-ground inspection
- Gather property boundary information from public records
- Identify potential constraint areas such as communities, subdivisions, airports
- Identify environmental and land-use constraints
- Identify compatible routing opportunities such as existing utility corridors

ESTABLISH ALTERNATIVE ROUTES:

INVITE PUBLIC INVOLVEMENT

- Notify landowners of project and open house meetings
- Provide maps showing potential preliminary routing links
- Hold open house meetings to describe the project and solicit input
- Evaluate input from open house meeting attendees and comment cards
- Respond to inquiries
- Evaluate any additional input from the public, local officials, and agencies
- Revise preliminary routing links as necessary
- Produce alternative routes using retained links for final review

EVALUATE ALTERNATIVE ROUTES CONSIDERING FACTORS SUCH AS:

- Environment
- Compatible Easements
- Parks & Recreational Areas
- Engineering Constraints
- Land Use
- Apparent Property Boundaries
- Historical & Archaeological Lines
- Cost

SELECT ALTERNATIVE ROUTES FOR FILING

FIELD ACTIVITIES

GROUND PENETRATING RADAR

Ground Penetrating Radar (GPR) helps identify the location of underground utilities. A device that looks similar to a lawnmower, and is nondestructive to the soil, uses radio frequencies to detect objects below the ground's surface. Maps and images are created from the data.

HELICOPTER

Challenging terrain or other restrictions/obstructions can make accessing certain parts of a project area difficult. In these locations, crews use helicopters to install structures, string conductors, per form line work and maintain electric facilities. Company representatives work with local media out lets to communicate these activities to the public.

HYDRO EXCAVATION

Crews use hydro excavation (hydrovac) in areas where many underground utilities are located near each other. This process involves using pressurized water to break down soil to expose underground utilities. Afterward, crews backfill the area. The process helps prevent damage to underground infrastructure while gathering important information.

LIDAR

LiDAR (Light Detection and Ranging) uses laser pulses to measure the distance of an object to the source. The data points result in digital 3D maps for accurate design and engineering. LiDAR surveying crews use mobile (car or aerial vehicle) or static (tripod) equipment.

FIELD ACTIVITIES

SOIL BORINGS

Field crews use a drill to bring up soil samples and then backfill the holes. Testing the core samples helps determine soil conditions in the area. Soil conditions and types can affect structure location and foundation design.

CULTURAL RESOURCE SURVEY

Field crews walk the area and conduct multiple excavation tests to identify historical and archaeological artifacts. Landowners also provide information about their property to survey crews.

ENVIRONMENTAL SURVEY

Surveyors collect information about the habitats and physical attributes of the project area. They also look for ecological concerns like wetlands, flood plains and forests. This process can help protect endangered species, such as the Indiana Bat and American Burying Beetle.

UNMANNED AERIAL VEHICLES (DRONES)

Unmanned aerial vehicles (UAVs), or drones, perform aerial inspections and safely gather data and detailed images of electric facilities. Company employees and vendors comply with all commercial Federal Aviation Administration (FAA) guidelines. Company representatives work with local media outlets to communicate these activities to the public.

FIELD ACTIVITIES

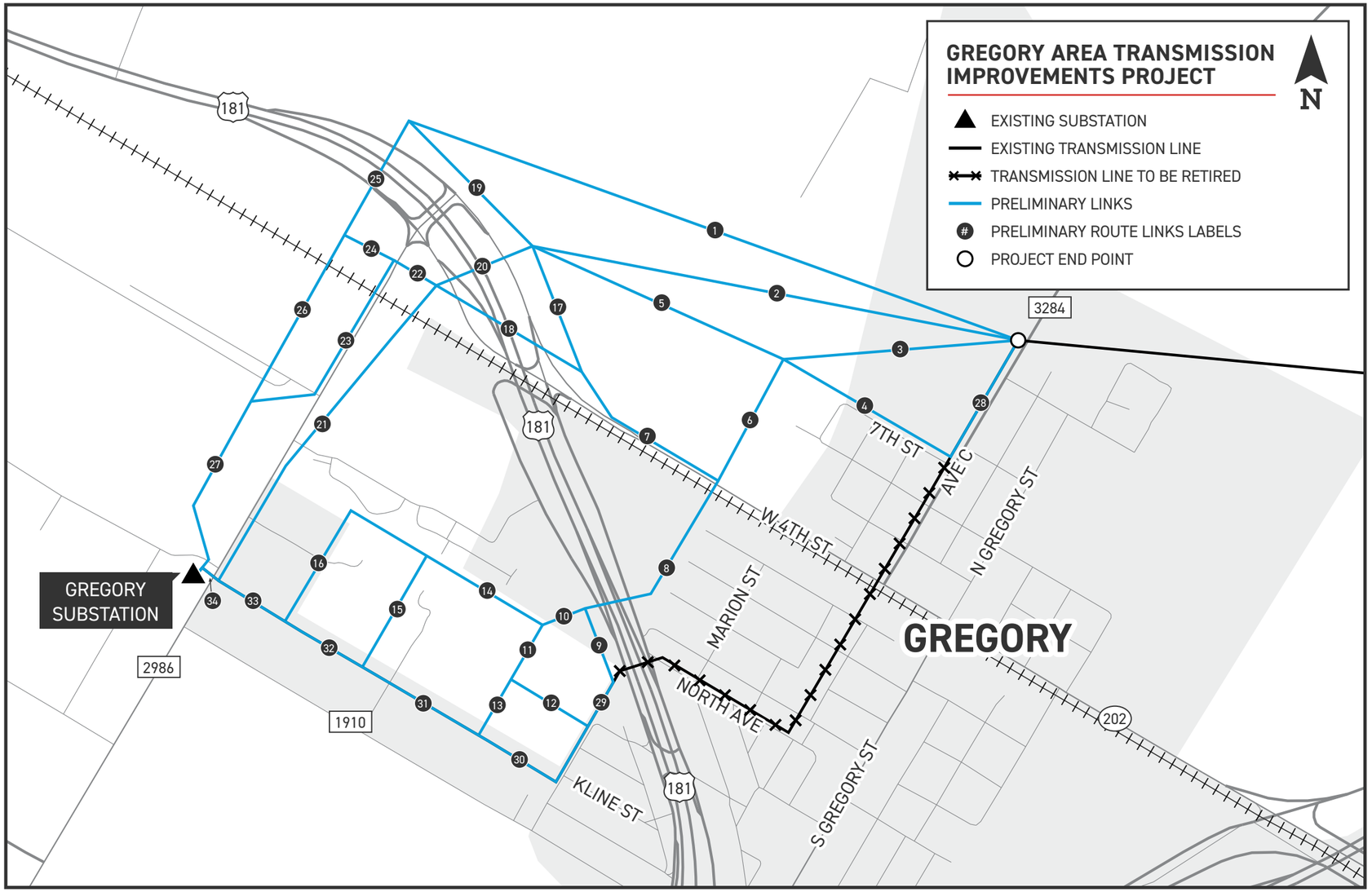
STAKING

- Field crews use staking to mark the project area, identify utility equipment and pinpoint future structure locations. This process essentially transfers engineering and construction plans to the field.
- Right-of-way crews use staking to identify parcel boundaries, easement boundaries and other utility locations within the company's rights-of-way.
- Environmental crews use staking to identify wetlands or other environmentally sensitive areas.

FIELD SURVEY

- Field survey crews help determine an appropriate route for a new transmission line by identifying constraints within the project area.
- Engineers conduct extensive studies of the terrain and soil to determine what types of structures and foundations are most suitable. They also gather information to create digital 3D maps of the project area to help engineer and design the project.

PROJECT MAP


GREGORY AREA TRANSMISSION IMPROVEMENTS PROJECT
N
EXISTING SUBSTATION
EXISTING TRANSMISSION LINE
TRANSMISSION LINE TO BE RETIRED
PRELIMINARY LINKS
PRELIMINARY ROUTE LINKS LABELS
PROJECT END POINT
GREGORY SUBSTATION
GREGORY
181
3284
2986
1910
202
7TH ST
AVE C
N GREGORY ST
W 4TH ST
MARION ST
NORTH AVE
KLINE ST
S GREGORY ST

TRANSMISSION LINE PROJECT REVIEW PROCESS

A transmission addition is determined necessary for service reliability or connection of new load/generation.

TRANSMISSION ROUTING PROCESS:

ENVIRONMENTAL ASSESSMENT AND ROUTING STUDY

- Define study area
- Identify routing link constraints

ESTABLISH PRELIMINARY ROUTING LINKS

- Invite public involvement (tonight's Open House)
- Finalize links, develop routes

SELECT ALTERNATIVE ROUTES FOR FILING

PUC APPROVAL PROCESS:

AEP TEXAS FILES APPLICATION AT PUC

- Direct mail notice of application to landowners, local public officials, and electric utilities
- Publication of notice in local newspaper
- 45-Days intervention period

IF NO HEARING IS REQUESTED

- Application approved administratively 180 days

IF HEARING IS REQUESTED

- Application processed within 180 days
- Hearing be administrative law judge (ALJ)
- ALJ makes recommendation to PUC

PUC MAKES THE FINAL DECISION:

- Approve or deny application
- If approved, decides location of approved route

AGENCIES CONTACTED

FEDERAL

- Department of Defense Military Aviation and Installation Assurance Siting Clearinghouse
- Federal Aviation Administration
- Federal Emergency Management Agency
- National Parks Service
- NRCS Texas State Office
- United States Army Corps of Engineers
  - Galveston District
  - Corpus Christi Field Office
- United States Environmental Protection Agency

LOCAL

- City of Gregory
- Gregory-Portland Independent School District
- McCampbell-Porter-Ingleside Airport
- San Patricio County Drainage District
- San Patricio County Historical Commission
- San Patricio County Officials
- San Patricio Municipal Water District

STATE

- Railroad Commission of Texas
- Texas General Land Office
- Texas Commission on Environmental Quality
- Texas Department of Transportation
  - Aviation Division
  - Environmental Affairs Division
  - Transportation Planning & Programming
  - Corpus Christi District Engineer
- Texas Historical Commission
- Texas Parks and Wildlife Department
- Texas Water Development Board

ADDITIONAL ORGANIZATIONS

- Coastal Bend Audubon Society
- Coastal Bend Council of Governments
- Texas Agricultural Land Trust
- Texas Land Conservancy
- Texas Land Trust Council
- The Nature Conservancy of Texas

ENVIRONMENTAL & LAND USE CRITERIA FOR TRANSMISSION LINE EVALUATION

LAND USE

Length of:
- Alternative route
- Route utilizing existing transmission line right-of-way (ROW)
- Route parallel and adjacent to existing transmission line ROW
- Route parallel and adjacent to other existing ROW (roadways, highways, railways, canals, etc.)
- Route parallel and adjacent to apparent property lines[2] (or other natural or cultural features, etc.)
- Route across parks/recreational areas[3]
- Route across cropland
- Route across pasture/rangeland
- Route across land irrigated by traveling systems (rolling or pivot type)
- Route parallel to existing pipeline ROW <500 feet from route centerline

Number of:
- Habitable structures[1] within 300 feet of route centerline
- Additional parks/recreational areas[3] within 1,000 feet of route centerline
- Pipeline crossings
- Transmission line crossings
- Interstate, United States, and State highway crossings
- Farm-to-Market (FM) road crossings
- Federal Aviation Administration (FAA)-registered airports[4] with at least one runway more than 3,200 feet in length located within 20,000 feet of route centerline
- FAA-registered airports[4] having no runway more than 3,200 feet in length located within 10,000 feet of route centerline
- Private airstrips within 10,000 feet of route centerline
- Heliports within 5,000 feet of route centerline
- Commercial AM radio transmitters within 10,000 feet of route centerline
- FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of route centerline
- Recorded water wells within 200 feet of route centerline
- Recorded oil and gas wells within 200 feet of route centerline

Sum of evaluation criteria 3, 4, 5, and 6

Percent of evaluation criteria 3, 4, 5, and 6

[1]Single-family and multi-family dwellings, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, places of worship, hospitals, nursing homes, and schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 300 feet of the centerline of a transmission project of 230 kV or less.

[2]Apparent property boundaries created by existing roads, highways, or railroad ROWs are not “double-counted” in the length of route parallel to apparent property boundaries criteria.

[3]Defined as parks and recreational areas owned by a governmental body or an organized group, club, or place of worship within 1,000 feet of the centerline of the Project.

[4]As listed in the Chart Supplement South Central US (formerly known as the Airport/Facility Directory South Central US).

[5]One-half mile, unobstructed. Lengths of route within the foreground visual zone of Interstates, United States, and State Highway criteria are not “double-counted” in the length of route within the foreground visual zone of FM roads criteria.

[6]One-half mile, unobstructed. Lengths of route within the foreground visual zone of parks/recreational areas may overlap with the total lengths of route within the foreground visual zone of interstate, United States, and State highway criteria and/or with the total lengths of route within the foreground visual zone of FM roads criteria.

All measurements are shown in miles unless noted otherwise.

AEP TEXAS
An AEP Company

ENVIRONMENTAL & LAND USE CRITERIA FOR TRANSMISSION LINE EVALUATION

AESTHETICS

Estimated length of route within foreground visual zone[5] of:
- Interstate, United States, and State highways
- FM roads

Estimated length of route within foreground visual zone[5, 6] of parks/recreational areas[3]

ECOLOGY

Length of route across:
- Upland woodlands/brushlands
- Bottomland/riparian woodlands
- National Wetlands Inventory-mapped wetlands
- Known critical habitat of federally listed threatened or endangered species
- Open water (lakes, ponds, etc.)
- 100-year floodplains

Number of:
- Stream/canal crossings
- River crossings

Length of route parallel (within 100 feet) to streams or rivers

CULTURAL RESOURCES

Number of:
- Cemeteries within 1,000 feet of route centerline
- Recorded archeological and historic resources crossed by route ROW
- Additional recorded archeological and historic resources within 1,000 feet of route centerline
- NRHP-listed or determined-eligible resources crossed by route ROW
- Additional NRHP-listed or determined-eligible resources within 1,000 feet of route centerline

Length of route across areas of high archeological site potential

[1]Single-family and multi-family dwellings, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, places of worship, hospitals, nursing homes, and schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 300 feet of the centerline of a transmission project of 230 kV or less.

[2]Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of route parallel to apparent property boundaries criteria.

[3]Defined as parks and recreational areas owned by a governmental body or an organized group, club, or place of worship within 1,000 feet of the centerline of the Project.

[4]As listed in the Chart Supplement South Central US (formerly known as the Airport/Facility Directory South Central US).

[5]One-half mile, unobstructed. Lengths of route within the foreground visual zone of Interstates, United States, and State Highway criteria are not "double-counted" in the length of route within the foreground visual zone of FM roads criteria.

[6]One-half mile, unobstructed. Lengths of route within the foreground visual zone of parks/recreational areas may overlap with the total lengths of route within the foreground visual zone of interstate, United States, and State highway criteria and/or with the total lengths of route within the foreground visual zone of FM roads criteria.

All measurements are shown in miles unless noted otherwise.

GREGORY AREA
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