



An **AEP** Company

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# GOODLETT

## TRANSMISSION LINE IMPROVEMENTS PROJECT

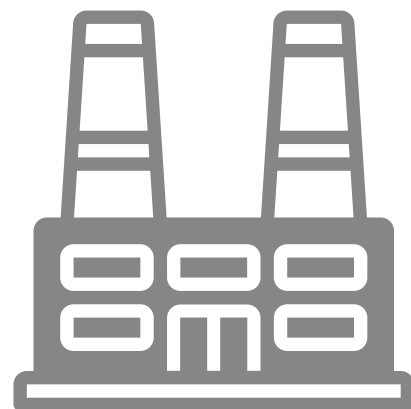
# WELCOME TO OUR VIRTUAL OPEN HOUSE

As a result of the COVID-19 pandemic and social distancing recommendations made by the Centers for Disease Control and Prevention (CDC), AEP Texas invites you to attend this virtual open house in order to minimize in-person contact. AEP Texas 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

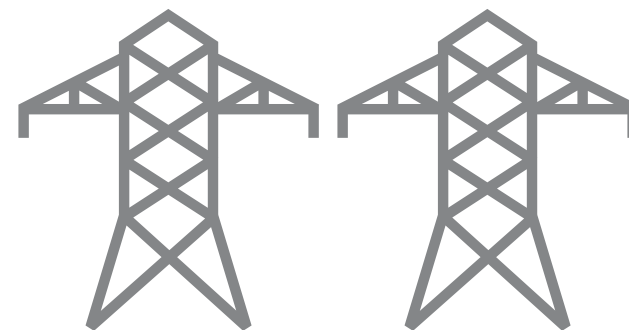
## HIGH VOLTAGE

LOCAL TRANSMISSION >>



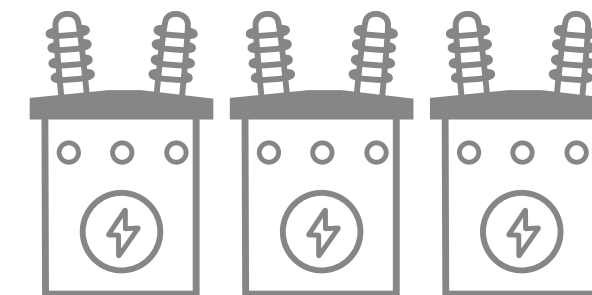
### 1) GENERATION STATIONS

AEP Texas produces 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 765 kilovolt (kV), 500 kV, and 345 kV on AEP Texas' system.



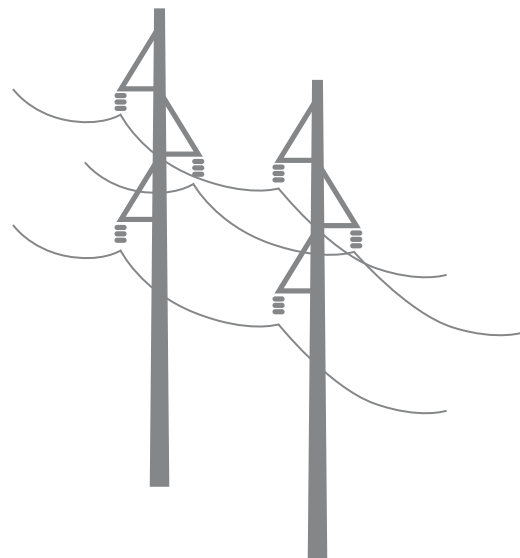
### 3) SUBSTATIONS

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

# HOW THE SYSTEM WORKS

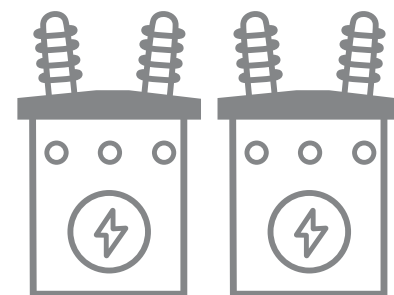
## LOCAL TRANSMISSION

DISTRIBUTION >>



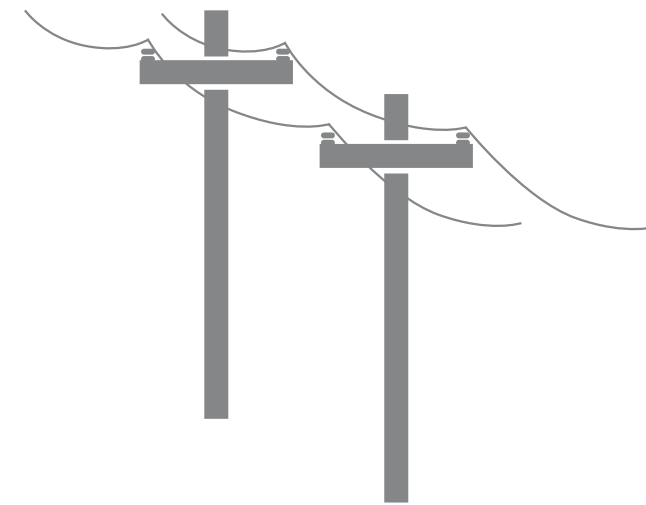
### 4) LOCAL TRANSMISSION

AEP Texas typically uses 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.

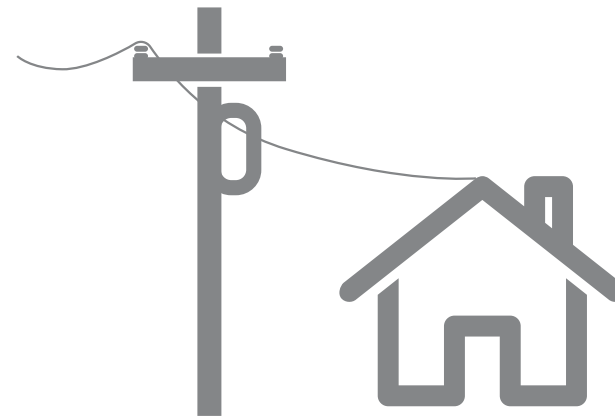
# HOW THE SYSTEM WORKS

## 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. 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?

### IMPROVED SAFETY

Years of underground activity at an active gypsum mine and natural erosion have compromised portions of the existing Childress - Quanah transmission line and AEP Texas' Acme Bestwall Substation.

### CUSTOMER BENEFITS

The project improves power reliability in the Hardeman County area.

### MEETING FUTURE NEEDS

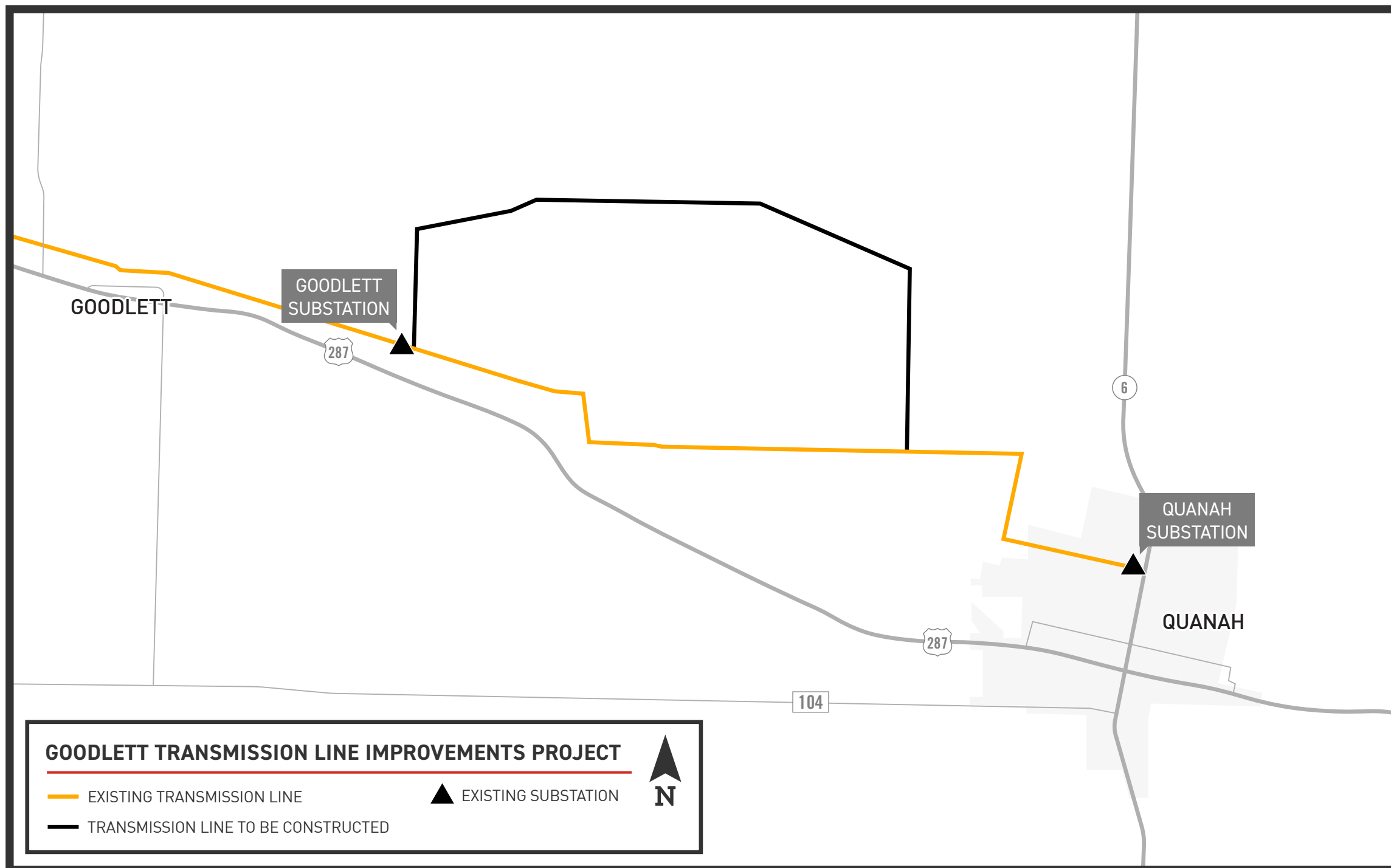
EP Texas needs to relocate this line due to the considerable reliability and safety concerns mining and erosion in the area have created.



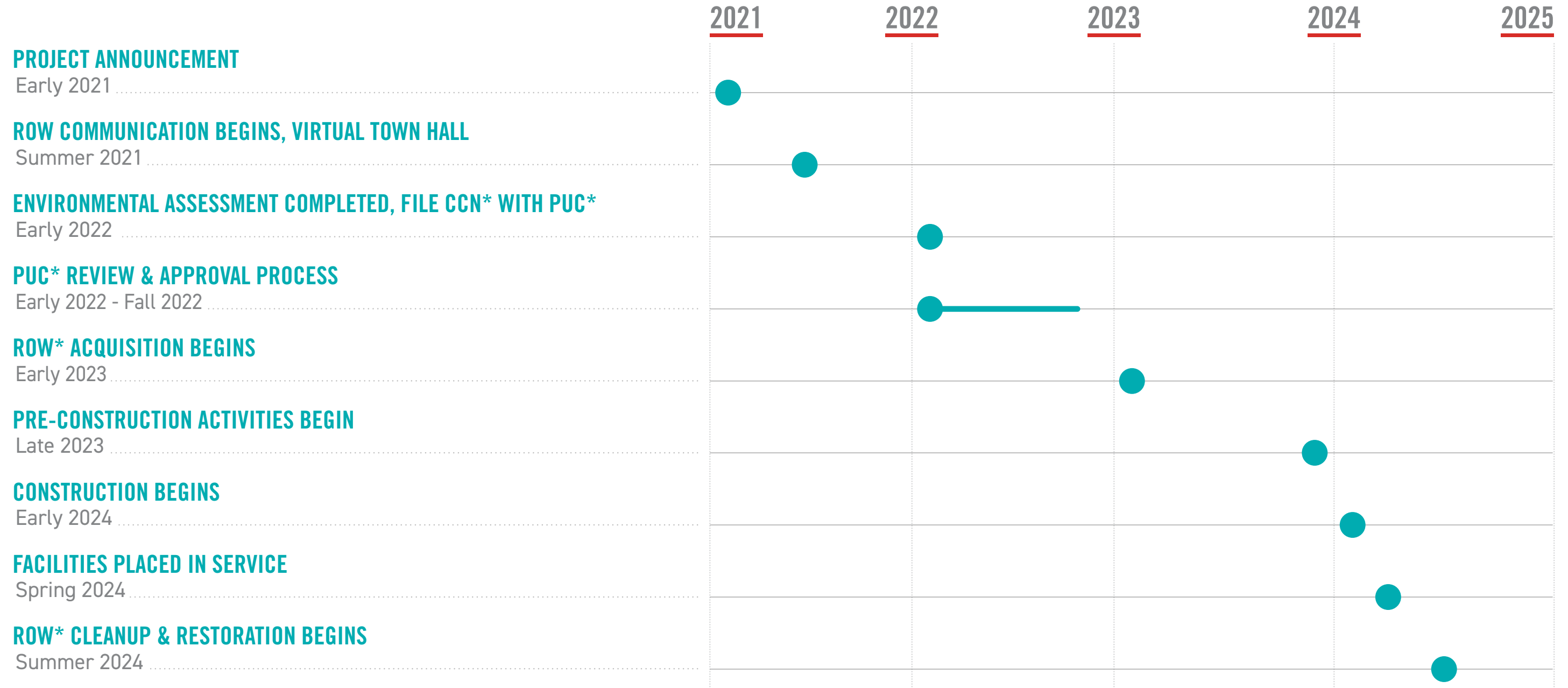
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# PROJECT MAP



# PROJECT SCHEDULE



\*ROW: Right-of-Way; PUC: Public Utility Commission of Texas; CCN: Certificate of Convenience and Necessity  
Note: Timeline subject to change.

# ENVIRONMENTAL AND LAND USE CRITERIA

## FOR TRANSMISSION LINE EVALUATION

### LAND USE

Length of alternative route (miles)

Number of habitable structures<sup>1</sup> within 300 feet of the right-of-way (ROW) centerline

Length of ROW using existing transmission line ROW

Length of ROW parallel to existing transmission line ROW

Length of ROW parallel to other existing ROW (roadways, railways, etc.)

Length of ROW parallel to apparent property lines<sup>2</sup>

Length of ROW across parks/recreational areas<sup>3</sup>

Number of additional parks/recreational areas<sup>3</sup> within 1,000 feet of the ROW centerline

Length of ROW across cropland

Length of ROW across pasture/rangeland

Length of ROW across land irrigated by traveling systems (rolling or pivot type)

Length of ROW parallel to existing pipeline ROW (<500 feet from ROW centerline)

Number of pipeline crossings

Number of transmission line crossings

Number of U.S. and state highway crossings

Number of farm-to-market road crossings

Number of cemeteries within 1,000 feet of the ROW centerline

Number of FAA registered airports<sup>4</sup> with at least one runway more than 3,200 feet in length located within 20,000 feet of the ROW centerline

Number of FAA registered airports<sup>4</sup> having no runway more than 3,200 feet in length located within 10,000 feet of the ROW centerline

Number of private airstrips within 10,000 feet of the ROW centerline

Number of heliports within 5,000 feet of the ROW centerline

Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline

Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of the ROW centerline

### AESTHETICS

Estimated length of ROW within foreground visual zone<sup>5</sup> of U.S. and state highways

Estimated length of ROW within foreground visual zone<sup>5</sup> of farm-to-market roads

Estimated length of ROW within foreground visual zone<sup>[5][6]</sup> of park/recreational areas<sup>3</sup>



# ENVIRONMENTAL AND LAND USE CRITERIA

## FOR TRANSMISSION LINE EVALUATION

### ECOLOGY

- Length of ROW through upland woodlands/brushlands
- Length of ROW through bottomland/riparian woodlands
- Length of ROW across NWI mapped wetlands
- Length of ROW across known habitat of federally listed endangered or threatened species
- Length of ROW across open water (lakes, ponds)
- Number of stream crossings
- Number of river crossings
- Length of ROW parallel (within 100 feet) to canals, streams, or rivers
- Length of ROW across 100-year floodplains

### CULTURAL RESOURCES

- Number of recorded cultural sites crossed by ROW
- Number of additional recorded cultural sites within 1,000 feet of ROW centerline
- Number of National Register of Historic Places listed sites crossed by ROW
- Number of additional National of Register Historic Places listed sites within 1,000 feet of ROW centerline
- Length of ROW through areas of high archeological site potential

<sup>1</sup> Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, 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.

<sup>2</sup> Apparent property boundaries created by existing roads, highways, or railroad ROWs are not “double-counted” in the length of ROW parallel to apparent property boundaries criteria.

<sup>3</sup> Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

<sup>4</sup> As listed in the Chart Supplement South Central U.S. (FAA 2019a formerly known as the Airport/Facility Directory South Central U.S.) and FAA 2019b.

<sup>5</sup> One-half mile, unobstructed. Lengths of ROW within the foreground visual zone of U.S. and state highway criteria are not “double-counted” in the length of ROW within the foreground visual zone of FM roads criteria.

<sup>6</sup> One-half mile, unobstructed. Lengths of ROW within the foreground visual zone of parks/recreational areas may overlap with the total length of ROW within the foreground visual zone of U.S. and state highway criteria and/or with the total length of ROW within the foreground visual zone of FM roads criteria.

# AGENCIES CONTACTED



## FEDERAL

- Federal Aviation Administration
- Federal Emergency Management Agency
- National Parks Service
- Natural Resources Conservation Service
- U.S. Army Corps of Engineers
- U.S. Department of Defense Siting Clearinghouse
- U.S. Environmental Protection Agency
- U.S. Fish & Wildlife Service



## STATE

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

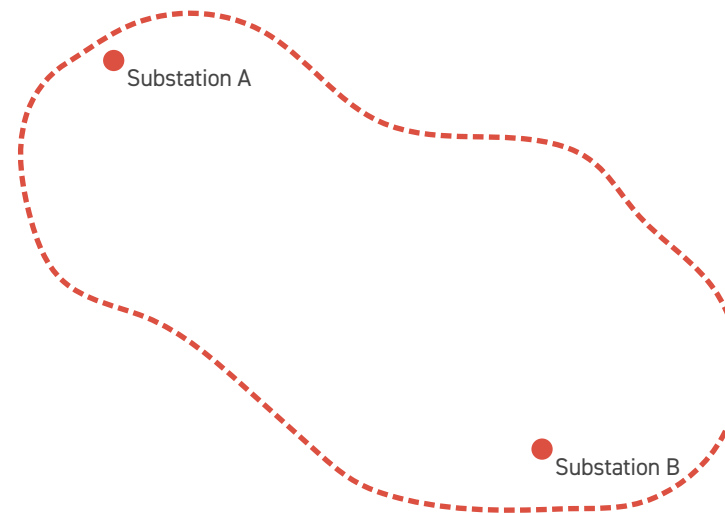


## LOCAL

- San Patricio County Officials
- San Patricio County Drainage District
- San Patricio County Floodplain Manager
- San Patricio County Historical Commission
- Gregory-Portland ISD
- Sinton ISD
- Taft ISD
- Coastal Bend Council of Governments

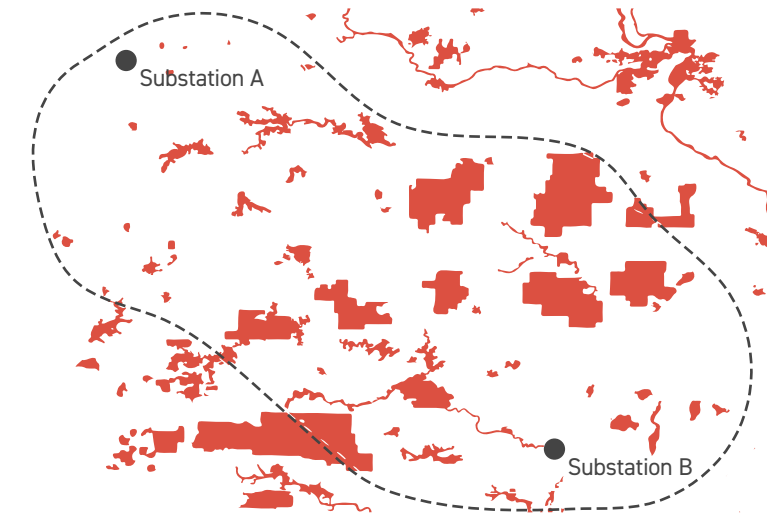
# ROUTING PROCESS

AEP Texas implements a comprehensive siting process that takes into account land use, the environment, public input, and engineering guidelines to develop a transmission line route. This process is inherently iterative with route segments changing over time as more information is gathered. Below is a discussion of the terminology used at each stage in the process.



## 1) STUDY AREA

AEP Texas develops a Study Area for the Project that incorporates the two endpoints and the area in between.

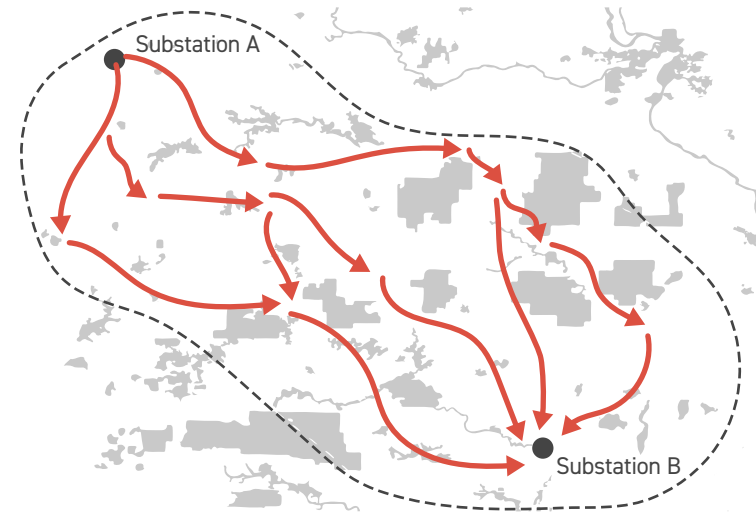


## 2) DATA GATHERING

Data is gathered for the defined study area including environmental, land use, historic and cultural resources, existing infrastructure and sensitive areas.

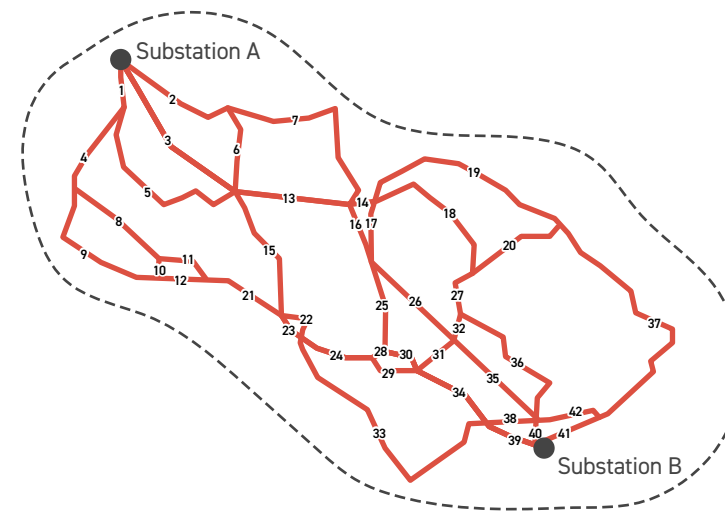


# ROUTING PROCESS



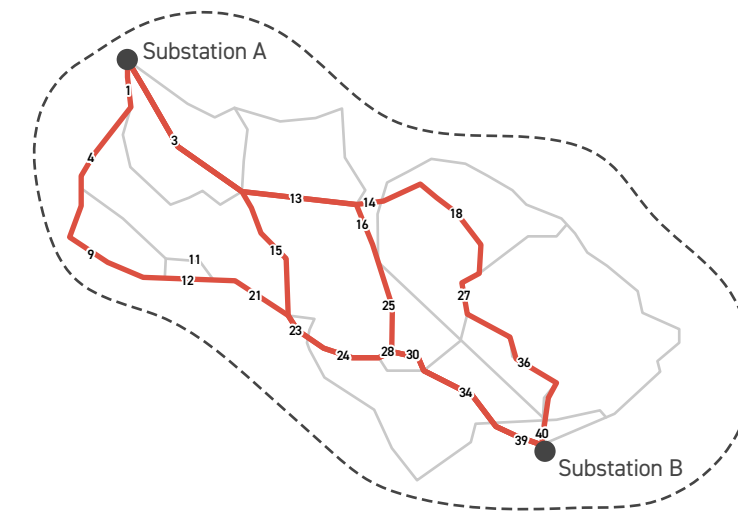
### 3) CONCEPTUAL ROUTES

The Routing Team uses this information to develop Conceptual Routes adhering to a series of general routing and technical guidelines.



### 4) STUDY SEGMENTS

Where two or more Potential Study Segments intersect, a node is created, and between two nodes, a link is formed. Together, the network formed by these links is referred to as Potential Study Segments.

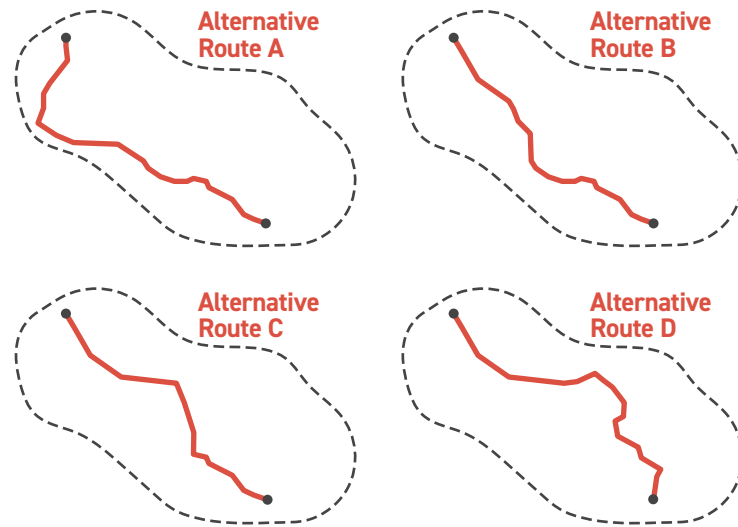


### 5) REFINED STUDY SEGMENTS

As more information is gathered, the Study Segments are refined. Some Study Segments are eliminated or modified, leaving the Refined Study Segments for further consideration.

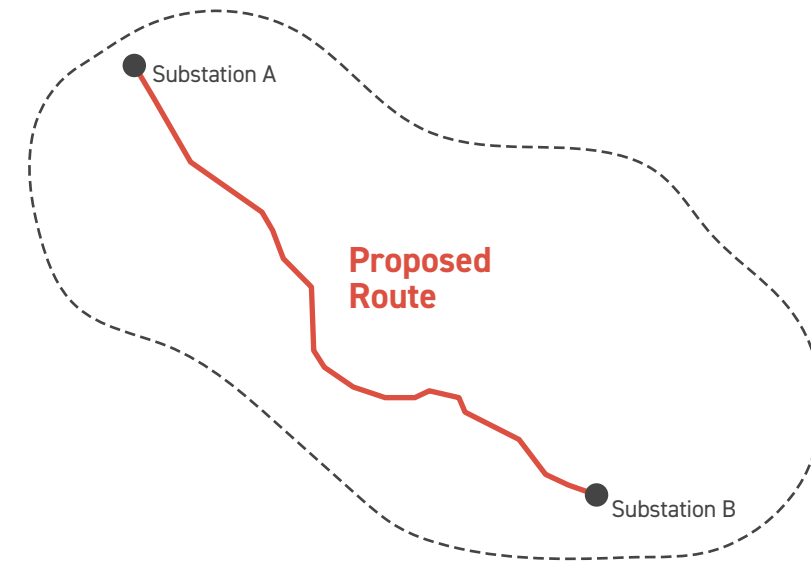


# ROUTING PROCESS



## 6) ALTERNATIVE ROUTES

After public input is incorporated, the Refined Study Segments are further evaluated and a selection of the most suitable segments is assembled into Alternative Routes.



## 7) PROPOSED ROUTE

Potential impacts are assessed and compared with land uses, natural and cultural resources, and engineering and construction concerns for all the Alternative Routes. Ultimately, a Proposed Route is selected from the Alternative Routes that minimizes the effect of the Project on the natural and human environment, while avoiding circuitous routes, extreme costs, and non-standard design requirements.

# 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 in 80 days

### IF HEARING IS REQUESTED

- Application processed within one year
- Hearing by administrative law judge (ALJ)
- ALJ makes recommendation to PUC

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## PUC MAKES THE FINAL DECISION:

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

# 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:

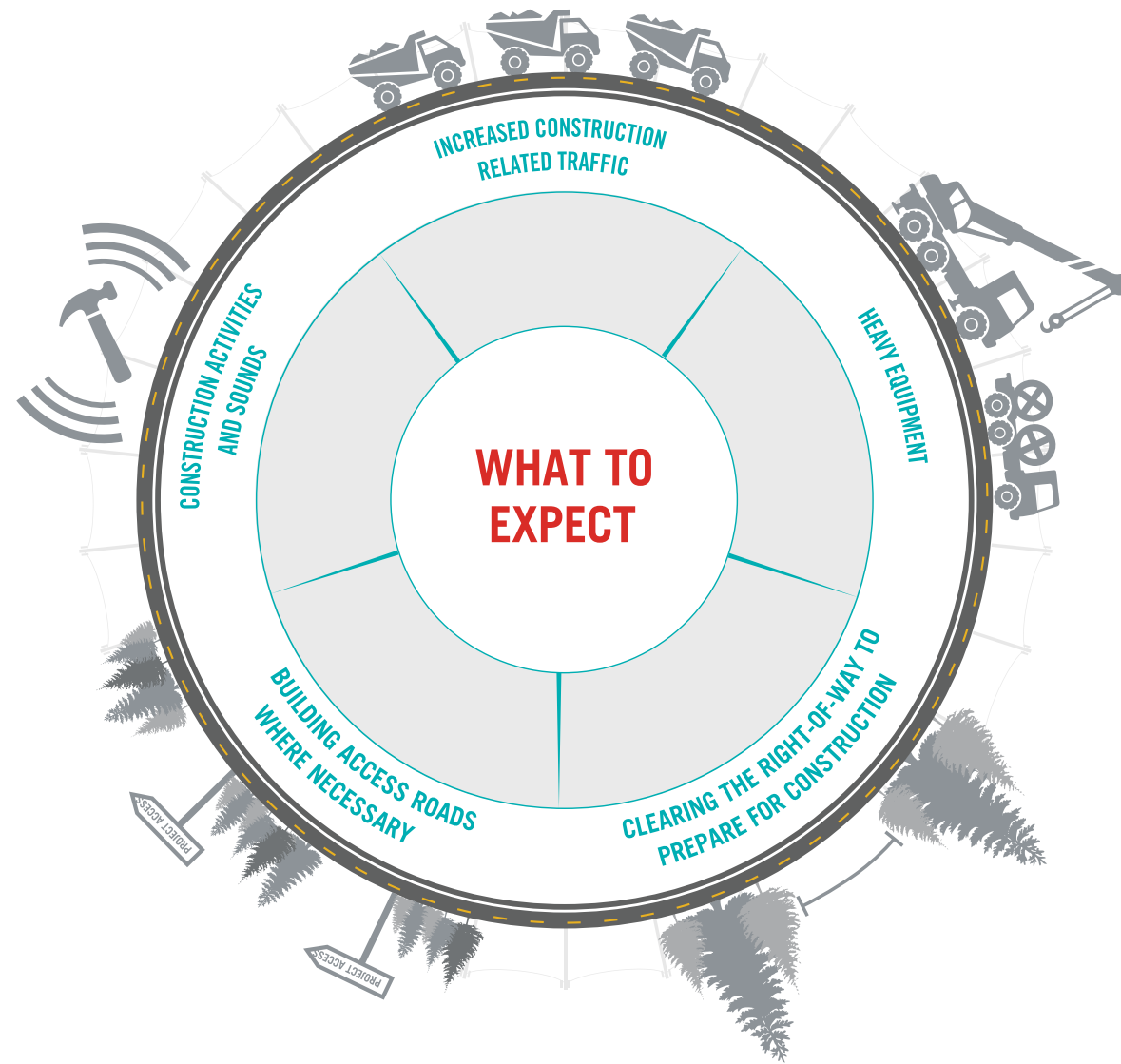
- Landowner compensation
- Terms and conditions of easement
- Width of the right-of-way

## TO OUTLINE AEP TEXAS' CONSTRUCTION PROCESS WITH A SPECIFIC FOCUS ON:

- Property restoration
- Damage mitigation as appropriate



# 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.

# GOODLETT

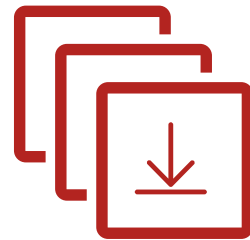
## TRANSMISSION LINE IMPROVEMENTS PROJECT

### 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**



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**VISIT PROJECT  
WEBSITE**