

## **CRUCE - REFORZAR TRANSMISSION IMPROVEMENTS PROJECT**

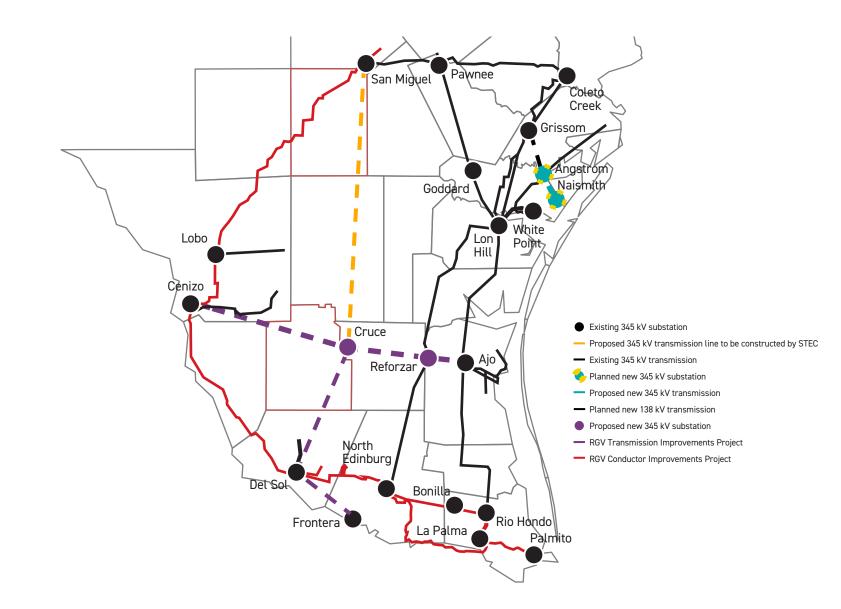
## WELCOME TO OUR VIRTUAL OPEN HOUSE

As a result of the COVID-19 pandemic and social distancing recommendations made by the Centers for Disease Control and Prevention (CDC), 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.



# **REGION OVERVIEW**

BOUNDLESS ENERGY



Following Texas' winter storms in February 2021, the Electric Reliability Council of Texas (ERCOT) recognized the need for additional transmission lines in the Rio Grande Valley (RGV) and endorsed AEP Texas plans for transmission system improvements to strengthen the region's system.

AEP Texas developed the RGV Transmission Improvements Project to implement these necessary improvements for reliability in the Valley, and plan to add about 190 miles of 345-kilovolt (kV) transmission line and two substations to the Texas grid by the end of 2026.



# **REGION OVERVIEW**

The RGV Transmission Improvements Project encompasses five separate transmission line projects, each requiring separate Certificate of Convenience and Necessity approval by the Public Utility Commission of Texas (PUC). These projects are in development and require feedback from the community prior to filing regulatory applications with the PUC.

#### **DEL SOL – FRONTERA**

Counties: Starr and Hidalgo Open Houses: Oct. 2022

#### **CRUCE** – **DEL SOL**

Counties: Duval, Jim Hogg, Brooks, Starr Open Houses: Dec. 2022

#### CENIZO – CRUCE

Counties: Webb, Zapata, Jim Hogg, Duval, Brooks Open Houses: Mar. 2023

Affected landowners within the project areas can expect to receive notification of the projects and open houses. \*Dates subject to change

### **CRUCE – REFORZAR**

Counties: Duval, Jim Hogg, Jim Wells, Brooks, Kleberg, Kennedy Open Houses: Mar. 2023

#### AJO – REFORZAR

Counties: Brooks, Kleberg, Kennedy Open Houses: Mar. 2023



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# **PROJECT NEED & BENEFITS**

## WHY IS THE PROJECT IMPORTANT TO OUR COMMUNITY?

### THE CRUCE - REFORZAR TRANSMISSION IMPROVEMENTS PROJECT **BENEFITS SOUTH TEXAS BY:**

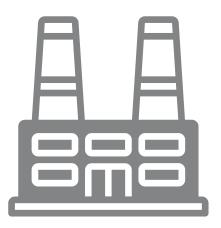
- Improving regional reliability and resiliency with the addition of a new 345-kV transmission line that hasbeen determined critical by ERCOT.
- Helping strengthen the power grid against severe weather events.
- Reducing the likelihood and duration of wide, community-sustained outages.
- Providing additional capacity for growth and economic development.



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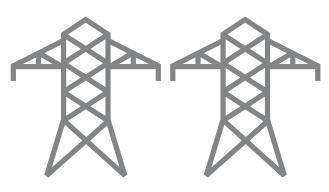
# **HOW THE SYSTEM WORKS**

### **HIGH VOLTAGE**



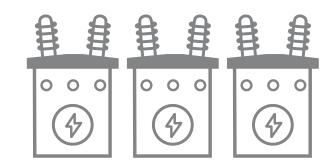
### **1) GENERATION STATIONS**

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.



### LOCAL TRANSMISSION >>

### **3) SUBSTATIONS**

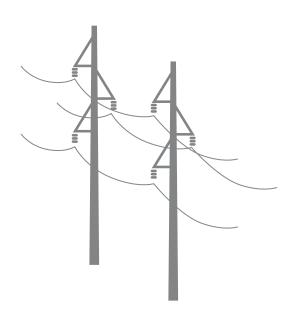
- Substations direct the flow of
- electricity and either decrease or
- increase voltage levels for transport.



# **HOW THE SYSTEM WORKS**

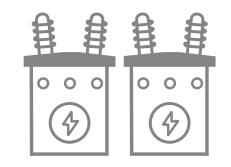
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### LOCAL TRANSMISSION



#### 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.

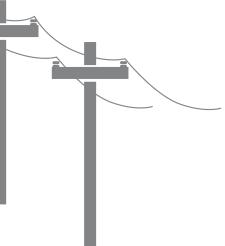


#### **5) SUBSTATION**

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

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

#### **DISTRIBUTION** >>



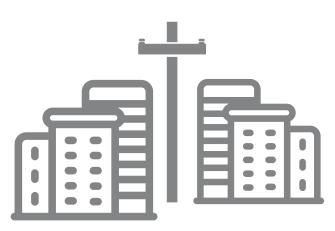
#### **6) PRIMARY DISTRIBUTION**



# **HOW THE SYSTEM WORKS**

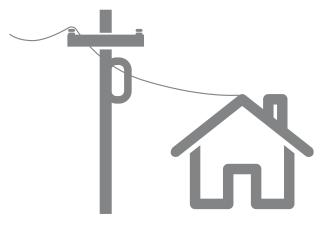
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## DISTRIBUTION



### 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.

- High-voltage local transmission lines are like four-lane roads.

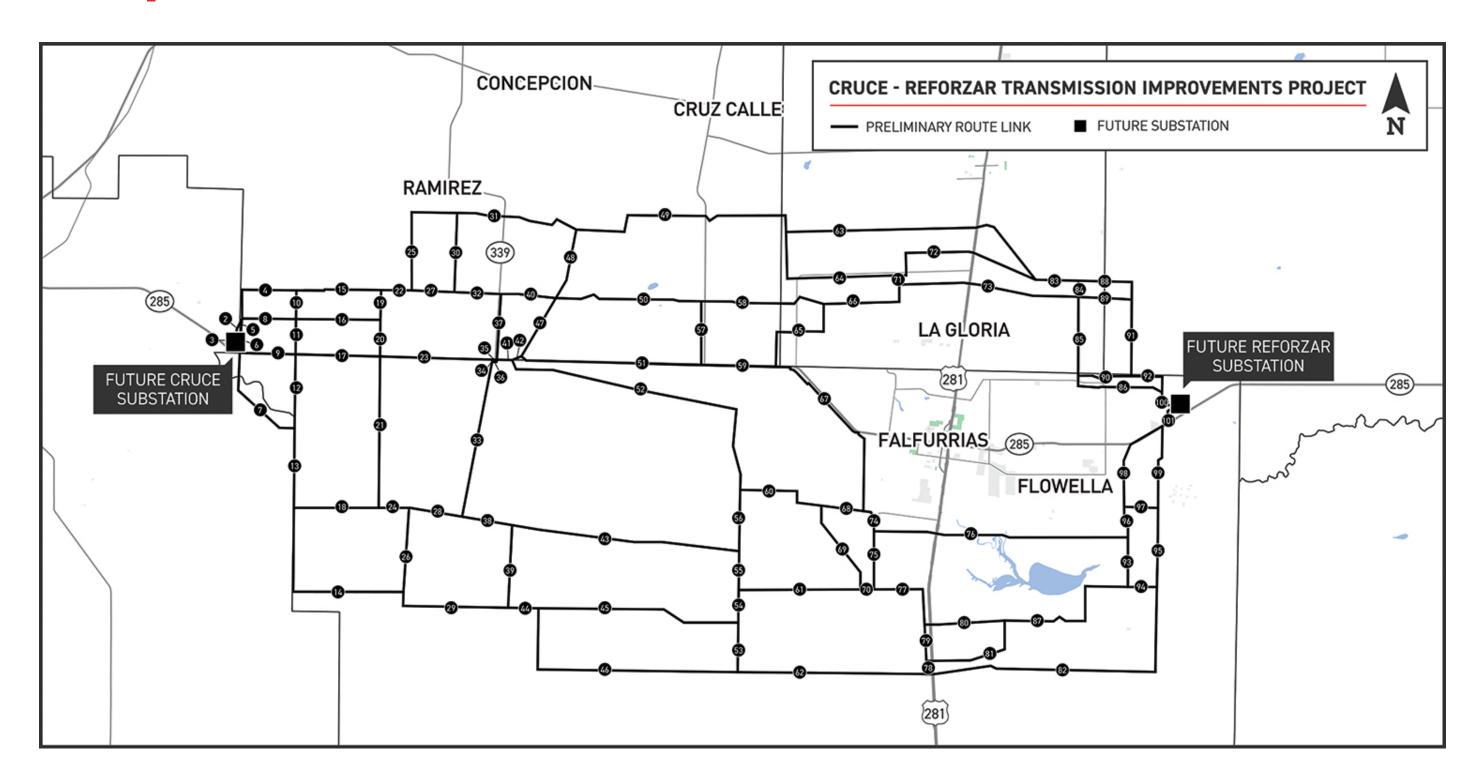
### **TO USE AN ANALOGY, ELECTRIC** TRANSMISSION IS SIMILAR TO OUR NATIONAL ROAD SYSTEM. THREE KINDS **OF POWER LINES EXIST BETWEEN POWER PLANTS AND HOMES AND BUSINESSES:**

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



# **PROJECT MAP**

BOUNDLESS ENERGY





# **PROJECT SCHEDULE**

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	2022	2023	2024	202
<b>OPEN HOUSE</b> March 2023				
CCN* APPLICATION FILED WITH PUC* Summer 2023				
ANTICIPATED PUC* APPROVAL & FINAL ROUTE DETERMINATIO Early 2024				
ROW* COMMUNICATIONS & FIELD ACTIVITIES BEGIN Early 2024	•••			
ROW* CLEARING BEGINS Late 2025				
TRANSMISSION LINE CONSTRUCTION BEGINS Late 2025				
FACILITIES PLACED IN SERVICE Fall 2026				
<b>RESTORATION ACTIVITIES BEGIN</b> Fall 2026				

\*CCN: Certificate of Convenience and Necessity; PUC: Public Utility Commission of Texas; ROW: Right-of-Way





\*\*Timeline subject to change.



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# **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 180 days • Hearing by 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



# **TRANSMISSION ROUTING PROCESS**

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## **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 guestionnaires
- Respond to inquiries
- Revise preliminary routing links as necessary

### **EVALUATE ALTERNATIVE ROUTES CONSIDERING FACTORS SUCH AS:**

- Environment
- Compatible Easements
- Parks & Recreational Areas
- Engineering Constraints

### SELECT ALTERNATIVE ROUTES FOR FILING

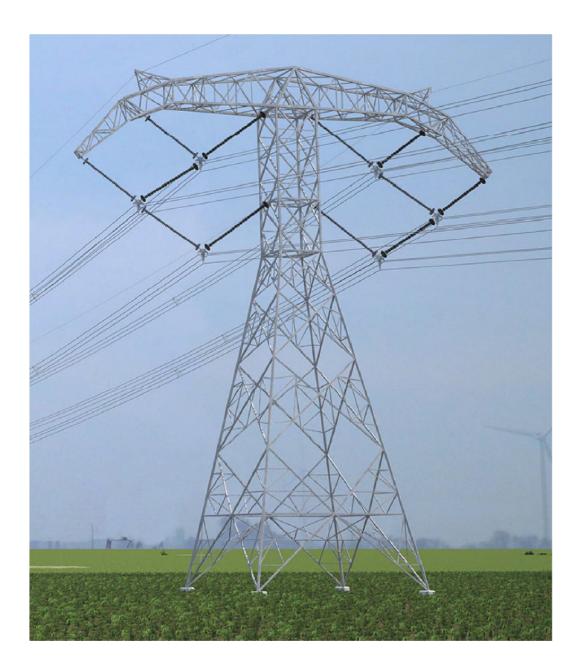
• Evaluate any additional input from the public, local officials, and agencies

- Land Use
- Apparent Property Boundaries
- Historical & Archaeological Lines
- Cost



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# **PROPOSED STRUCTURES**



The project includes AEP's BOLD (Breakthrough in Overhead Line Design) technology, which are capable of operating more efficiently than conventional transmission pole designs.

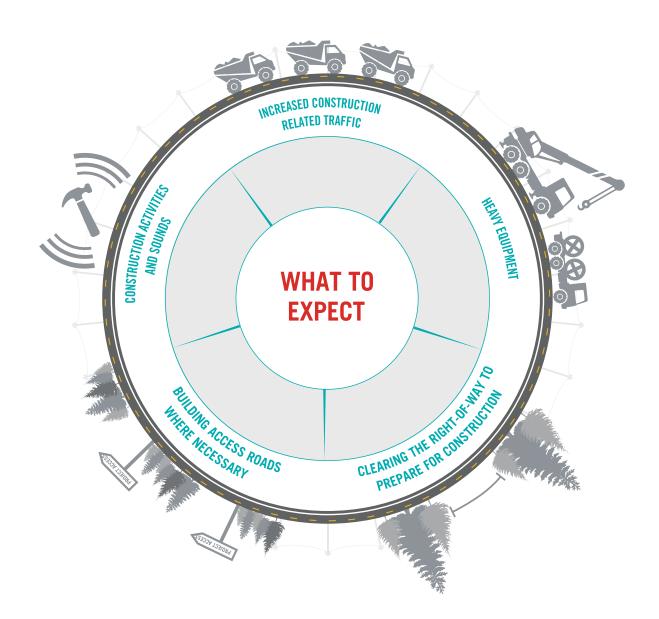
Typical Height: 140 feet\* Typical Distance Between Structures: Approximately 1,200 feet\* Typical Right-of-Way Width: 150 feet\*

\*Exact structure type, heights, right-of-way widths and spacing may vary based on location



# **CONSTRUCTION PROCESS**

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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.



## **RIGHT-OF-WAY**

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### AEP TEXAS HAS TWO KEY PHILOSOPHIES THAT PERTAIN TO POWER LINE RIGHTS-OF-WAY:





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





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



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### **CRUCE - REFORZAR** 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.





