

# SCOPE, PURPOSE & NEED



## **SCOPE:**

CPS Energy proposes to construct a new substation in the northwest part of Bexar County in the area of Loop 1604 and State Hwy 151, near the intersection of Wiseman and State Hwy 151 to serve customer load at that location. CPS Energy plans to install a new 138kV transmission line that will be connected to the existing Cagnon to Helotes transmission line in order to serve the new substation.

## **PURPOSE & NEED:**

The new substation is necessary to provide reliable electric service to the project area as a result of a new large customer load that cannot be supported by the existing substation or overhead distribution lines in the area. The new substation is proposed to be connected to the existing 138kV Cagnon to Helotes transmission line.

# Planning Criteria



- 13.2kV Substation transformer = 40 MW
- 34.5kV Substation transformer = 80 MW
- 13.2kV circuit capacity = 10 MW main line
- 34.5kV circuit capacity = 25 MW main line

- **Distribution Level Service:**

- Less than 40 MW

- **Transmission Level Service:**

- More than 40 MW

# ROUTING AND SITING PROCESS HIGHLIGHTS



## **DETERMINE A NEED FOR THE PROJECT**

- By utility planners and engineers.

## **DEFINE THE STUDY AREA**

## **GATHER DATA, IDENTIFY CONSTRAINTS, PROPOSE PRELIMINARY ALTERNATIVE ROUTE SEGMENTS**

- Obtain aerial photos of the study area.
- Gather property boundary information.
- Identify environmental/land-use constraints and opportunities.
- Send letters to federal, state and local agencies requesting information about the study area.
- Gather information regarding natural, cultural and human resources
- Assess easement/right-of-way features/concerns.
- Evaluate transmission structure types suitable for project need.

## **INVITE PUBLIC INVOLVEMENT**

- Notify landowners in proximity to alternative route segments to open house.
- Advertise open house in newspaper (digital and hard copy) of general circulation in the project area.
- Hold open house to explain the project and solicit input on preliminary alternative route segments.
- Evaluate public and agency input.
- Adjust preliminary alternative route segments, if appropriate, based upon public input received.

## **PREPARE ENVIRONMENTAL ASSESSMENT REPORT INCLUDING EVALUATION OF PUBLIC AND AGENCY INPUT**

## **BEGIN CCA PROCESS**

# CCN Process Highlights



## APPLICATION & NOTIFICATION

- CPS Energy submits Application to the Public Utility Commission of Texas (PUC) to Amend CPS Energy's Certificate of Convenience and Necessity (CCN).
- CPS Energy mails or delivers notice to:
  - Landowners (as listed on the county tax rolls) whose property is crossed by an alternative route segment
  - Landowners who own habitable structures within 300 feet of an alternative route segment (as listed on the county tax rolls)
  - Texas Parks & Wildlife
  - Department of Defense
  - Municipalities within five miles
  - Other Electric Utilities within five miles
  - Bexar County
  - Office of Public Utility Counsel
- CPS Energy publishes notice of the filed application in a newspaper of general circulation in Bexar County (the San Antonio Express News) within a week of filing the application.

## PUC PUBLIC PARTICIPATION

- Landowners and other potentially impacted persons have 45 days to file a request to participate (intervene) in the PUC proceeding.
- If no parties intervene, the PUC staff conduct a review and issue a recommendation.
- If parties intervene, testimony may be filed, and an administrative hearing is held. After the hearing process, an Administrative Law Judge (ALJ) will prepare a recommendation to the PUC (a Proposal for Decision). The ALJ will consider the following when making a ruling:
  - Community values, recreational and park areas, historical and aesthetic values, environmental integrity, and other factors associated with the need for the project
  - Engineering constraints, costs, and moderation of impact on affected community and landowners

## PUC DECISION

- Within approximately 12 months of the application filing (if contested) the five governor appointed PUC Commissioners will approve the application, deny the application, or approve the application with modifications. The PUC's approval will extend to the overall project need and the routing of the project outside of the San Antonio municipal boundaries.
- CPS Energy is approved to construct, own, and operate the approved transmission line outside of the San Antonio municipal boundaries using the routing approved by the PUC.

## CPS ENERGY BOARD OF TRUSTEES DECISION

- The project team will provide the information utilized in the PUC process to the CPS Energy Board of Trustees along with the decisions and recommendations given by the PUC regarding the project need and routing.
- The CPS Energy Board of Trustees will hear public input and identify the transmission route to be constructed within the San Antonio municipal boundaries.



# Anticipated Timeline



**Gather information and land use data**  
**In progress**

**Send letters to landowners**  
**May 24, 2023**

**Hold Open House**  
**June 7, 2023**

**Complete Environmental Analysis and Routing  
Assessment**  
**July 2023**

**Submit CCN application to  
The Public Utility Commission of Texas (PUC)  
Notify directly affected landowners and other  
required entities**  
**August 2023**

**Receive Ruling from the PUC regarding need for the  
project and selected route outside of the  
San Antonio boundaries**  
**August 2024**

**Receive approval to proceed and selected route inside  
of the San Antonio boundaries by CPS Energy  
Board of Trustees**  
**November 2024**

**Start construction**  
**November 2024**

**Complete construction**  
**February 2027**



# Substation Facts



## EXISTING SUBSTATIONS

- As of 2023, there are approximately 113 existing substations in the CPS Energy service area.
- Substations operate on either 345kV or 138kV transmission voltages and either 34.5kV or 13.2kV distribution voltages.

## NEW SUBSTATIONS

- The general location for a substation is determined by the demand for electricity in that area.
- A substation site must have access to public roadway.
- A substation site must have suitable potential access for interconnecting the existing transmission system network and serving load needs with new or existing distribution lines.
- Typical suitable site conditions for a new substation include:
  - Location – not in an area subject to regular flooding
  - Size – approximately five acres
  - Terrain – relatively flat
  - Soil – primarily natural soil (minimal to no fill or waste)

# Typical Substations



# Typical 138kV Transmission Poles





# Land Use & Environmental Evaluation Criteria



TABLE 2-2 LAND USE AND ENVIRONMENTAL EVALUATION CRITERIA

## EVALUATION CRITERIA

### Land Use

- 1 Length of alternative route (miles)
- 2 Number of habitable structures<sup>1</sup> within 300 feet of the route centerline
- 3 Length of ROW using existing transmission line ROW
- 4 Length of ROW parallel and adjacent to existing transmission line ROW
- 5 Length of ROW parallel and adjacent to other existing ROW (roadways, railways, etc.)
- 6 Length of ROW parallel and adjacent to apparent property lines<sup>2</sup> (or other natural or cultural features, etc.)
- 7 Sum of evaluation criteria 4, 5, and 6
- 8 Percent of evaluation criteria 4, 5, and 6
- 9 Length of ROW across parks/recreational areas<sup>3</sup>
- 10 Number of additional parks/recreational areas<sup>3</sup> within 1,000 feet of ROW centerline
- 11 Length of ROW across cropland
- 12 Length of ROW across pasture/rangeland
- 13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)
- 14 Length of route across conservation easements and/or mitigation banks (Special Management Area)
- 15 Length of route across gravel pits, mines, or quarries
- 16 Length of ROW parallel and adjacent to pipelines<sup>4</sup>
- 17 Number of pipeline crossings<sup>4</sup>
- 18 Number of transmission line crossings
- 19 Number of IH, US and state highway crossings
- 20 Number of FM or RM road crossings
- 21 Number of FAA registered public/military airports<sup>5</sup> with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline
- 22 Number of FAA registered public/military airports<sup>5</sup> having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline
- 23 Number of private airstrips within 10,000 feet of the ROW centerline
- 24 Number of heliports within 5,000 feet of the ROW centerline
- 25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline
- 26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline
- 27 Number of identifiable existing water wells within 200 feet of the ROW centerline
- 28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)

### Aesthetics

- 29 Estimated length of ROW within foreground visual zone<sup>6</sup> of IH, US and state highways
- 30 Estimated length of ROW within foreground visual zone<sup>6</sup> of FM/RM roads
- 31 Estimated length of ROW within foreground visual zone<sup>6</sup>[<sup>7</sup>] of parks/recreational areas<sup>3</sup>

### Ecology

- 32 Length of ROW through upland woodlands/brushlands
- 33 Length of ROW through bottomland/riparian woodlands
- 34 Length of ROW across NWI mapped wetlands
- 35 Length of ROW across critical habitat of federally listed endangered or threatened species
- 36 Length of ROW across open water (lakes, ponds)
- 37 Number of stream and river crossings
- 38 Length of ROW parallel (within 100 feet) to streams or rivers
- 39 Length of ROW across Edwards Aquifer Contributing Zone
- 40 Length of ROW across FEMA mapped 100-year floodplain

### Cultural Resources

- 41 Number of cemeteries within 1,000 feet of the ROW centerline
- 42 Number of recorded cultural resource sites crossed by ROW
- 43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline
- 44 Number of NRHP listed properties crossed by ROW
- 45 Number of additional NRHP listed properties within 1,000 feet of ROW centerline
- 46 Length of ROW across areas of high archeological site potential

**Notes:** All length measurements are shown in miles unless noted otherwise.

<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> Only steel pipelines six inches and greater in diameter carrying petrochemicals were quantified in the pipeline crossing and paralleling calculations.

<sup>5</sup> As listed in the Chart Supplement South Central US (FAA 2019b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

<sup>6</sup> One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

<sup>7</sup> One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria.

# Local, State & Federal Agencies Contacted/Notified



## FEDERAL

Federal Aviation Administration  
Federal Emergency Management Agency  
Natural Resources Conservation Service  
U.S. Army Corps of Engineers  
Military Aviation and Installation Assurance Siting Clearinghouse  
U.S. Environmental Protection Agency  
U.S. Fish Wildlife Service  
U.S. National Parks Service

## STATE

Railroad Commission of Texas  
Texas Commission on Environmental Quality  
Texas Department of Transportation  
    Department of Aviation  
    Environmental Affairs Division  
    Planning and Programming  
    San Antonio District Engineer  
Texas General Land Office  
Texas Historical Commission  
Texas Parks and Wildlife Department  
Texas House of Representatives  
Texas State Senate  
Texas Water Development Board

## LOCAL

Alamo Area Council of Governments  
Alamo Soil and Water Conservation District  
Bexar County Economic Development  
Bexar County Flood Control  
Bexar County Historical Commission  
Bexar County Judge, Commissioner, and Manager  
City of Helotes  
City of Leon Valley  
City of San Antonio Officials  
Edwards Aquifer Authority  
Northside ISD  
San Antonio Office of Historic Preservation  
San Antonio River Authority  
San Antonio World Heritage Office  
San Antonio Water System  
Texas Agricultural Land Trust  
Texas Cave Management Association  
Texas Land Conservancy

# Generation to Customer Diagram



## ELECTRIC GENERATION AND DISTRIBUTION



# Typical Transmission Easements



100 feet clearing around transmission structure



16-30 feet clearing along route

# Acquisition Process

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- Mail “Bill of Rights” letter to affected landowners
- Contact property owner
- Obtain permission to conduct survey(s)
- Survey establishes boundaries of substation/easement  
(Simultaneously perform environmental/ cultural surveys)
- Substation/easement area is defined/described by  
Registered Professional Land Surveyor
- Value of substation/easement established by  
independent appraiser
- Negotiate with property owner for substation  
site/easement or right-of-way for utility use

# Right-of-Way Terms to Know



## **EASEMENT:**

The right to cross, or otherwise use, someone else's land for a specified purpose.

## **SURVEY:**

The measurement of the boundaries of a parcel of land, its area, and sometimes its topography.

## **APPRAISAL:**

The act or process of developing an opinion of value; an opinion of value.

## **NEGOTIATION:**

The process by which two or more parties resolve differences to reach a mutually acceptable agreement.

## **EMINENT DOMAIN:**

A governmental right to acquire private property for public use by condemnation, and the payment of just compensation.

## **FAIR MARKET VALUE:**

The price that would be negotiated between a willing seller and a willing buyer in a reasonable time, usually arrived at by comparable sales in the same area.

## **STATE OF TEXAS LANDOWNER BILL OF RIGHTS:**

Property owner rights that apply to any attempt by the government or a private entity to take your property, as prescribed in Texas Government Code Sec. 402.031 and Chapter 21 of the Texas Property Code.

# Endangered Species and Historic Features



Native American dart points of Central Texas



Karst invertebrates