

# ENVIRONMENTAL CRITERIA FOR ALTERNATIVE ROUTE EVALUATION

## LAND USE

Length of alternative route.  
Number of habitable structures<sup>1</sup> within 300 feet of the ROW centerline.  
Length of ROW parallel to existing electric transmission line ROW.  
Length of ROW parallel to other existing ROW (highway, pipelines, railway, etc.).  
Length of ROW parallel to private roads.  
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 across gravel pits, mines, or quarries.  
Number of transmission pipeline crossings.  
Number of electric transmission line crossings.  
Number of U.S. and State highway crossings.  
Number of Farm-to-Market (FM) or Ranch-to-Market (RM) road crossings.  
Number of cemeteries within 1,000 feet of the ROW centerline.  
Number of private use airstrips within 10,000 feet of the ROW centerline.  
Number of heliports within 5,000 feet of the ROW centerline.  
Number of FAA registered public use airports (runways >3,200 ft) within 20,000 feet of the ROW centerline.  
Number of FAA registered public use airports (runways <3,200 ft) within 10,000 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, etc. within 2,000 feet of the ROW centerline.

## AESTHETICS

Estimated length of ROW within foreground visual zone<sup>4</sup> of US and State highways.  
Estimated length of ROW within foreground visual zone<sup>4</sup> of FM/RM roads.  
Estimated length of ROW within foreground visual zone<sup>4</sup> of parks/recreational areas<sup>3</sup>.

## ECOLOGY

Length of ROW across bottomland/riparian woodlands.  
Length of ROW across upland forest.  
Length of ROW across potential wetlands<sup>5</sup>.  
Length of ROW across known occupied habitat of federally listed endangered or threatened species.  
Length of ROW across open water (lakes, ponds, etc.).  
Number of stream crossings.  
Length of ROW parallel (within 100 feet) to streams or rivers.  
Length of ROW across 100-year floodplains<sup>6</sup>.

## CULTURAL RESOURCES

Number of recorded historic or prehistoric sites crossed by ROW.  
Number of additional recorded historic or prehistoric sites within 1,000 feet of ROW centerline.  
Number of National Register listed sites crossed by ROW.  
Number of additional National Register listed sites within 1,000 feet of ROW centerline.  
Length of ROW across high archaeological/historical site potential.

<sup>1</sup> Single-family and multi-family dwellings, and related structures, etc., 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> Property lines created by existing roads, highway, or railroad ROW are not "double-counted" in the length of ROW parallel to property lines criteria.

<sup>3</sup> Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church.

<sup>4</sup> One-half mile, unobstructed.

<sup>5</sup> According to the USFWS National Wetlands Inventory mapping.

<sup>6</sup> According to FEMA floodplain mapping.



All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas.

# Entergy Texas: Powering the Future of Southeast Texas China to Amelia Transmission Project

Southeast Texas' population and economic opportunities are growing year by year, fueled by dependable, affordable electrical power. That's certainly true for Jefferson County, which is home for some of the largest industrial complexes in the nation, and also to important rural and agricultural communities. The need for reliable power is just as important to Entergy Texas, Inc.'s customers in the more western portions of its service territory.

The purpose of the China to Amelia Transmission Project is to support growth throughout Southeast Texas by making it easier to transmit power from east to west. This will help ensure the company's ability to provide safe, reliable power to all its customers. It is also an example of how all of us at Entergy Texas take pride in our ability to plan ahead, to know how much electricity your community needs on any given day, where additional poles and wires need to be erected and where new technologies need to come into play.

Once this project is complete, it will enable Entergy Texas, Inc. to meet an important need in its more western areas by 2016.

### 1. Renovations and upgrades to the China Substation.

Entergy Texas' China Substation is located just west of the rural community of China. Renovation at the substation to prepare for the new transmission line will be confined to the area within the existing fence. A new 230-kilovolt bay will be constructed to allow installation of the planned transmission line.

### 2. Construction of new transmission line.

A single-pole, single-circuit 230-kilovolt transmission line will be constructed to run about 11 miles from the China Substation to the Amelia Substation near Beaumont.

### 3. Renovations and upgrades to the Amelia Substation.

The Amelia Substation is located on Old Sour Lake Road west of Beaumont. Like at the China Substation, all the work of preparing the substation for the new transmission line will take place within the existing fencing at the site. Work will include but is not limited to new equipment pedestals, trusses, a 230-kilovolt breaker as well as new switches.

There are a number of routes that the new transmission line could take between the two substations. Potential routes, along with the various segments that they would be comprised of, are listed in other portions of this brochure, along with the criteria used to select them. We have also included construction specifications so you will know what to expect once the project is under way and complete.

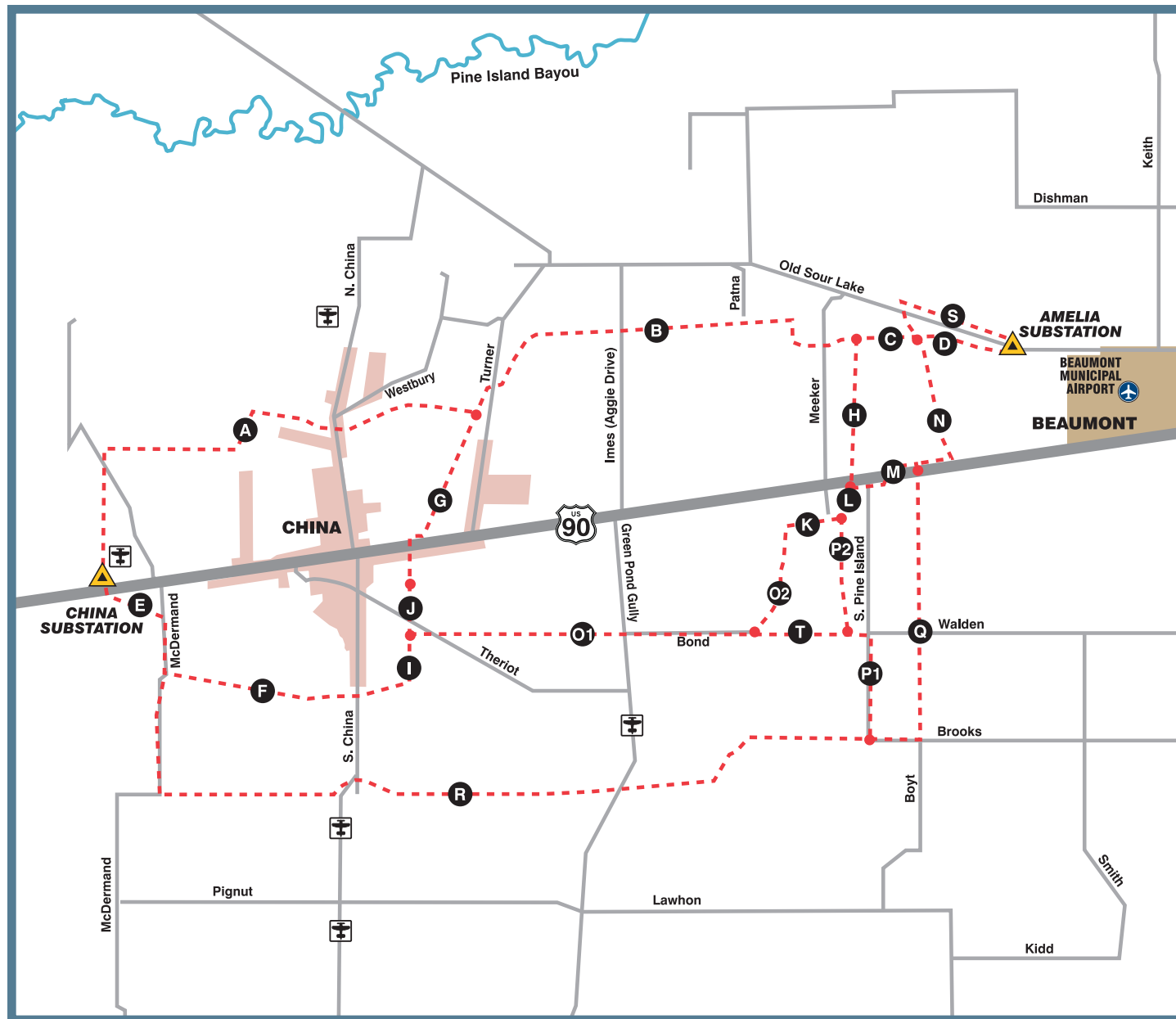
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At Entergy Texas, we have a simple set of values: Focus on our customers, treat people with respect and act with integrity. Our project construction plan will be developed taking you, our valued customer, into consideration. Once work begins, we will work safely during reasonable hours with as little inconvenience to you as possible.

Should you have any questions, please contact Linda Dixon, 409-981-3381.



THE POWER OF PEOPLE™



	Project Substation
	Segment Node
	Public Airport
	Private Airstrip
	Segment Designation

## China to Amelia 230 kV Project

Preliminary Alternative Segments



### Transmission Line

Entergy plans to construct and operate a single-pole, single-circuit 230kV transmission line from its China Substation west of China, to its Amelia Substation just west of Beaumont.

- Structure Type.....Single pole, concrete or steel
- Structure Height.....80 to 120 feet
- Minimum Ground Clearance.....30 feet
- Right-of-way Width.....80 to 125 feet
- Span Length.....500 to 600 feet
- Structures Per Mile.....9 to 10 structures
- Structure Diameter.....24 to 30 inches at ground level
- Structure Color.....Gray

### China Substation

All work at the China Substation will be confined to the limits of the existing fence. Expansion of a new 230kV bay will be required to facilitate installing the new line.

### Foundation Work

- Install 3 – 230kV breaker foundations
- Install 1 – 230kV full tension dead end foundation
- Install 230kV equipment pedestal foundations
- Install bus support foundations
- Install 230kV switch support foundations

### Electrical Work

- Install 1 – 230kV full tension dead end structure
- Install 230kV CVT & arrester equipment
- Install bus support pedestal
- Install 230kV switch support pedestal & switches
- Install 3 – 230kV Breakers

### Amelia Substation

All work at Amelia Substation will be confined to the limits of the existing fence on existing foundations.

- Install 230kV CVT & Arrester equipment pedestals
- Install 1 – W truss to existing bay for switch
- Install 2 – N trusses for additional strung bus
- Install 1 – 230kV breaker
- Install 230kV center side break switch on existing steel
- Install 230kV vertical break switch
- Install 230kV CVT's & Arresters