

SETEX Area Reliability Project

Entergy Texas, Inc. (Entergy Texas or ETI) is planning to construct a new single-circuit 500 kilovolt (kV) transmission line approximately 130 miles in length (depending on the route ultimately approved by the Public Utility Commission of Texas (PUCT)) in Jasper, Montgomery, Newton, Polk, San Jacinto, Trinity, Tyler, and Walker Counties (Project). The new transmission line will connect the proposed Babel 500 kV Switching Station to the proposed Running Bear Substation.

The proposed Babel Switching Station will be constructed at one of three potential locations currently under consideration that will connect into the existing Layfield to Hartburg 500 kV transmission line south of Toledo Bend Reservoir in Newton County.

The proposed Running Bear Substation will be constructed at one of multiple locations currently under consideration that will connect into either ETI's existing Lewis Creek facilities along Longstreet Road between Lake Conroe and Interstate Highway 45 or ETI's existing transmission facilities east of Willis between Farm-to-Market Road 1097 and County Line Road in Montgomery County.



What is the purpose and need of the SETEX Area Reliability Project?

During the 2023 Midcontinent Independent System Operator, Inc. (MISO) Transmission Expansion Plan (MTEP23) process, MISO identified this project as a Baseline Reliability Project (BRP) which is required to comply with Electric Reliability Organization (i.e., the North American Electric Reliability Corporation or NERC) reliability standards. The Project also meets the requirements detailed in Entergy's Local Planning Criteria. The Entergy Local Planning Criteria details the load serving capability criteria for constrained regions of the system, including existing load pockets such as ETI's Western Region. Finally, the Project will increase operational flexibility, help meet the growing power demands of Southeast Texas throughout ETI's Western Region and broader service territory, and increase reliability and resiliency during extreme events.

ETI's historically constrained Western Region load pocket has grown by approximately 5 percent per year over the last 5 years, and the Houston Metro area has swiftly expanded into ETI's service territory. While transmission upgrades have improved load serving capability over the years, the area remains constrained as growth in the region continues to increase. This Project will provide ETI with much needed operational flexibility and help address historical and ongoing load growth.

By adding a new source of transmission to the constrained Western Region, the project will also improve load serving capability and resilience during extreme events, such as Winter Storm Uri.

The proposed project will require the following scopes of work:

1) Design and build the new Babel 500 kV Switching Station:

Construct a new 500 kV Six Breaker Ring Substation that will tap the existing Layfield to Hartburg 500 kV transmission line.

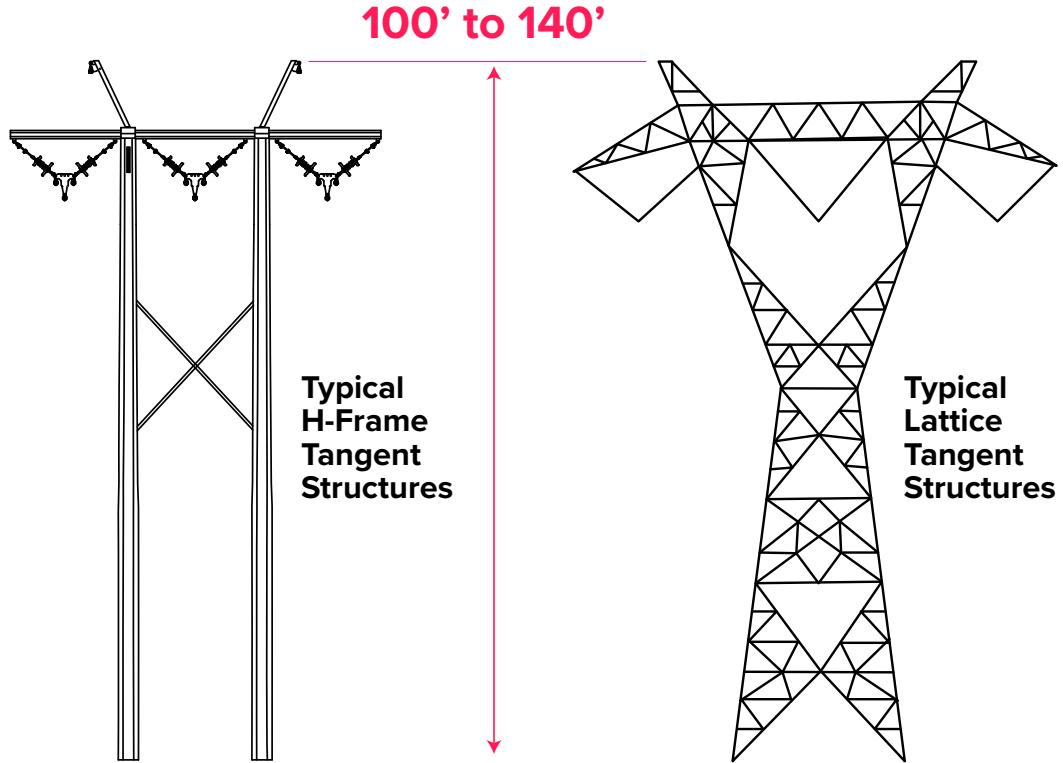
2) Design and build the new Running Bear 500 kV Substation:

Construct a new 500/230/138 kV Substation near ETI's existing Lewis Creek generation and transmission facilities or ETI's existing transmission facilities east of Willis, TX.

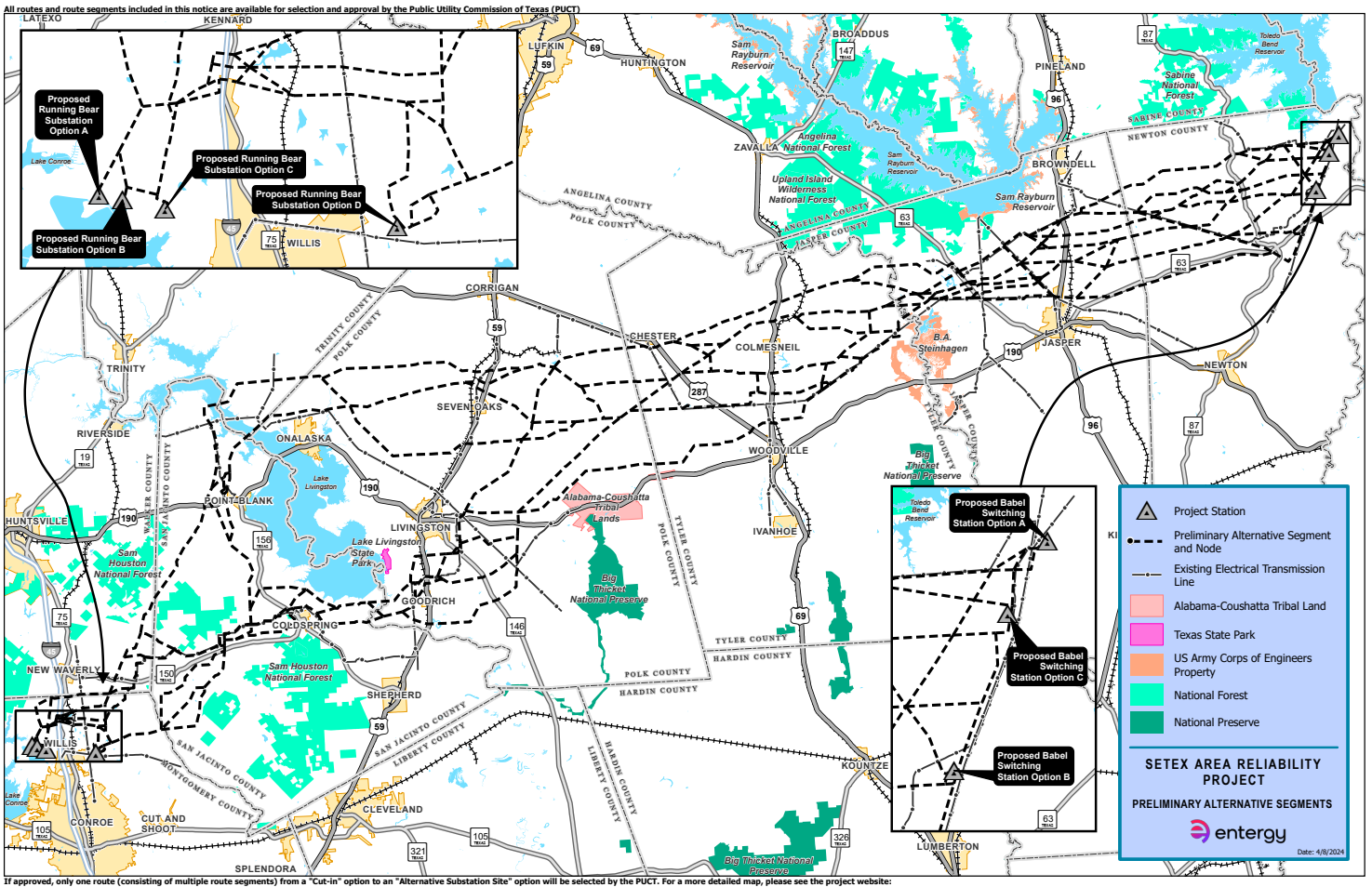
3) Design and build the new Babel to Running Bear 500 kV Transmission Line:

The new transmission line will be a new single-circuit 500 kV transmission line that would connect the proposed Babel and Running Bear stations.

Typical Structures



Typical structure shown. Structures along the route are subject to change based upon location and design requirements.



SETEX Area Reliability Project

Land use

- 01 Length of alternative route
- 02 Number of habitable structures¹ within 500 feet of the route centerline
- 03 Length of route utilizing existing electric facility right-of-way (ROW)
- 04 Length of route parallel to existing electric facility ROW
- 05 Length of route parallel to other existing compatible ROW (roads, highways, railway, or telephone utility ROW, etc.)
- 06 Length of route parallel to apparent property lines² (or other natural or cultural features)
- 07 Sum of evaluation criteria 3, 4, 5 and 6
- 08 Percent of evaluation criteria 3, 4, 5 and 6
- 09 Length of route parallel to pipeline ROW
- 10 Length of route across parks/recreational areas³
- 11 Number of additional parks/recreational areas³ within 1,000 feet of the route centerline
- 12 Length of route across cropland
- 13 Length of route across pasture/rangeland
- 14 Length of route across land irrigated by traveling systems (rolling or pivot type)
- 15 Length of route across gravel pits, mines, or quarries
- 16 Number of pipeline crossings
- 17 Number of electric transmission line crossings
- 18 Number of Interstate (IH), US Highway (US Hwy), and State Highway (SH) crossings
- 19 Number of Farm-to-Market (FM) or Ranch-to-Market (RM) road crossings
- 20 Number of private use airstrips within 10,000 feet of the route centerline
- 21 Number of heliports within 5,000 feet of the route centerline
- 22 Number of FAA registered airports⁴ (runways >3,200 feet) within 20,000 feet of the route centerline
- 23 Number of FAA registered airports⁴ (runways <3,200 feet) within 10,000 feet of the route centerline
- 24 Number of commercial Amplitude Modulation (AM) radio transmitters within 10,000 feet of the route centerline
- 25 Number of Frequency Modulation radio (FM radio), microwave towers, etc. within 2,000 feet of the route centerline
- 26 Number of existing water wells within 200 feet of the route centerline
- 27 Number of oil and gas wells within 200 feet of the route centerline

Aesthetics

- 28 Estimated length of route within foreground visual zone⁵ of US, Interstate, and State highways
- 29 Estimated length of route within foreground visual zone⁵ of FM/RM roads
- 30 Estimated length of route within foreground visual zone⁵ of parks/recreational areas³

Ecology

- 31 Length of route across bottomland/riparian forest
- 32 Length of route across upland forest
- 33 Acreage of route across National Wetland Inventory (NWI) mapped forested or scrub/shrub wetlands
- 34 Acreage of route across NWI mapped emergent wetlands
- 35 Length of route across known critical habitat of federally-listed threatened or endangered species
- 36 Length of route across open water (lakes, ponds, etc.)
- 37 Number of stream/canal crossings
- 38 Number of navigable waterway crossings
- 39 Length of route parallel (within 100 feet) to natural streams or rivers
- 40 Length of route across FEMA mapped 100-year floodplains

Cultural resources

- 41 Number of cemeteries within 1,000 feet of the route centerline
- 42 Number of recorded historic or archaeological resources crossed by route
- 43 Number of additional recorded historic or archaeological resources within 1,000 feet of route centerline
- 44 Number of resources determined eligible for or listed on the National Register of Historic Places crossed by route
- 45 Number of additional resources determined eligible for or listed on the National Register of Historic Places within 1,000 feet of route centerline
- 46 Length of route across high archaeological/historical site potential

¹ 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 500 feet of the centerline of a transmission project of 230 kV or more.

² Apparent Property lines created by existing roads, highway, or railroad ROW are not "double-counted" in the length of route parallel to apparent property lines criteria.

³ 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.

⁴ As listed in the Chart Supplement South Central U.S. (FAA 2023b formerly known as the Airport/Facility Directory South Central U.S.), FAA 2023a.

⁵ One-half mile, unobstructed. Lengths of ROW within the foreground visual zone of Interstates, US and state highway criteria are not "double-counted" in the length of ROW within the foreground visual zone of FM roads criteria.

⁶ 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 interstates, US and state highway criteria and/or with the total length of ROW within the foreground visual zone of FM roads criteria.