

BEECHAM GAP SUBSTATION AND 138 kV TRANSMISSION LINE PROJECT

Thank you for taking the time to learn about the proposed Beecham Gap Project. The proposed substation and transmission line project is needed for Brazos Electric Power Cooperative Inc. (Brazos Electric) to continue to provide safe and reliable electric service to Hamilton County Electric Cooperative (Hamilton), one of our member/owner cooperatives. Brazos Electric plans to construct approximately 5 to 20 miles of 138 kV double circuit-capable transmission line with single-pole structures, along with a new approximate six-acre substation sited northwest of Copperas Cove. Multiple substation locations have been studied but only one will be built as a result of this process.

Below are answers to frequently asked questions about a variety of topics related to the project. This proposed substation and transmission line project is currently planned to be in service by winter 2027. Thank you for your patience as we attempt to address any and all concerns.

Who is Brazos Electric?

Brazos Electric, with more than 2,700 miles of transmission line and over 415 substations/delivery points, is the oldest and largest not-for-profit transmission/distribution electric cooperative in Texas, and the state's sixth-largest transmission provider. Brazos Electric is owned by 16 member cooperatives, including Hamilton, and is regulated by the Public Utility Commission of Texas (PUCT). Brazos Electric constructs, owns, and operates the conductors or "wires" that move bulk electric power through Brazos Electric's electric transmission system, which serves 68 Texas counties.

What is Hamilton County Electric Cooperative's relationship to Brazos Electric?

Hamilton County Electric Cooperative is a not-for-profit electric distribution cooperative. As one of 16 member/owners of Brazos Electric, Hamilton relies on Brazos Electric to provide bulk power to Hamilton's service territory. Hamilton, in turn, serves the end-use consumers. Hamilton receives electricity from Brazos Electric, which transmits power from generation plants to substations. At these substations, Hamilton's distribution lines pick up the electricity and distribute it to homes and businesses. Due to extensive growth in the northwestern portion of Copperas Cove, Hamilton has identified a significant power capacity shortage in the study area, and Brazos Electric is attempting to address that need.

What is the electric transmission system?

The State's electric system is a network of power generation plants, transmission lines, switching stations, substations, and distribution lines designed to provide reliable electric service to retail customers. Transmission lines carry or "transmit" bulk electricity from power generation plants through switching stations to substations, where the electricity is converted to a lower voltage for distribution lines to carry or "distribute" to residences and businesses.

Is there a present need for additional electric infrastructure?

Yes. Power Engineers (Power), a leading industry energy consultant, conducted a study to evaluate the rapidly growing study area's power needs and the options to increase the area's current capacity.

Is there a present need for this project?

Yes. Capacity to supply Hamilton's load requirements for the study area is provided primarily by the Copperas Cove Substation. This substation, owned and operated by Pedernales Electric Cooperative (PEC), has two 12/16/20 MVA transformers operating at 25 kV, one of which is shared with the Cooperative for serving the Cooperative's load. Not only is the Cooperative relying on a shared transformer in a shared substation, but since the Cooperative has already experienced a peak load of 20.8 MW on the shared transformer, the Cooperative consumes 100% of the shared transformer's capacity during winter peak conditions.

The study area boundary is defined based on the area currently served by the Cooperative from the Copperas Cove Substation. In addition, small portions of the area served by the Cooperative's Kempner Substation and Adamsville Substation are included in the study area. A 12.5 kV distribution circuit from the Kempner Substation and a 12.5 kV distribution circuit from the Adamsville Substation serve the fringes of Copperas Cove, and both circuits are experiencing growth in residential, ranchette-type developments. The study area was expanded to include the development growth in this fringe area due to the circuit operation at 12.5 kV and the length of the circuits from the substations to the fringe area: 11 circuit miles for the Kempner circuit and 20 circuit miles for the Adamsville circuit. Provision of capacity from these two substations into the study area was excluded due to the existing loading on the Adamsville (76% loaded) and Kempner (97% loaded) substation transformers and due to the distance of the two substations from the study area load center.

Additionally, the study area includes portions of Coryell and Lampasas counties, and is approximately 78 square miles (8 miles in width by 11 miles in length). The study area is bounded on the east side by FM 116 and Fort Cavazos, on the south side by the LCRA 138 kV transmission line near State Highway 190, on the west side to the west of the Lampasas River, and on the north

side near the community of Topsey. Copperas Cove is the major population center within the study area, which has additional population in Fort Cavazos and Killeen.

The Copperas Cove Substation provides service to the west side of Copperas Cove, which is experiencing significant, higher-density residential development growth. The substation is located 6 circuit miles from the approximate load center for the study area. Two 25 kV distribution circuits extend from the Copperas Cove Substation into the study area. The existing loading on the Copperas Cove Substation is nearing the rated capacity of the substation transformer.

Who will benefit from the proposed project?

Hamilton's customers within Coryell and Lampasas counties, mainly northwest of Copperas Cove, are the primary beneficiaries of the increased capacity and delivery of reliable electric power. That said, all end users that receive electricity from the existing Copperas Cove Substation will benefit once the Beecham Gap project is complete. Once Beecham Gap is complete and energized, it will free up capacity on the existing Copperas Cove Substation transformer, providing additional growth and greater reliability to the end users.

What is the approximate location of the proposed transmission line?

The locations of the preliminary alternative links are shown on the maps presented here at the public meeting and on the on-demand meeting site. Once the current routing study (which includes public input) is complete, Brazos Electric will develop alternative transmission line routes from the alternative links, then evaluate them based on a robust list of constraints. The routing study will help identify the route that best meets the PUCT routing guidelines and other alternative routes for the proposed transmission line, all of which will be included in the Certificate of Convenience and Necessity (CCN) application filed with the PUCT. The PUCT is ultimately responsible for approving and ordering a route for the transmission line.

What is the approximate location of the proposed substation?

The most beneficial location for a new substation, based on engineering studies, is in the approximate vicinity of Lutheran Church Drive and Duncan Road. This provides Hamilton the optimum location for extending its distribution feeders to the most critical areas of need, enables Hamilton to plan for future sectionalizing capabilities, and increases reliability and capacity.

How long will the transmission line be?

The proposed transmission line could be from 5 to 20 miles long, depending on the route ordered by the PUCT.

What type of poles or structures will be used?

Brazos Electric intends to use a single-pole, double circuit-capable 138 kV design as the typical structure for the project. A rendering of the proposed typical structure is available to view in this meeting. No lattice structures or similar towers will be used.

How tall will the poles be?

Pole heights will vary depending on the contours of the property along the route selected by the PUCT, but the average above-ground pole height will be about 100 feet. The average distance between structures is estimated to be 550 feet, unless limited by angles or uneven terrain.

Why are multiple alternative routes evaluated?

The PUCT's CCN application process requires Brazos Electric to provide a reasonable number of geographically diverse alternative transmission line routes for its consideration. The application also requires Brazos Electric to select one of the proposed routes as a "best meets route", which *best meets* PUCT routing criteria. However, Brazos Electric will construct the alternative route selected by the PUCT.

Will an environmental study to determine the impact of the project be conducted?

Professional consultants from HDR Engineering (HDR), an environmental consulting firm, are preparing an environmental assessment and alternative route analysis of the proposed project. HDR's report will include an evaluation of viable, alternative routes in accordance with the PUCT's routing criteria and applicable environmental regulations.

How long is the CCN-to-construction process?

The CCN process takes about 12 months to complete. The first eight months involves the gathering, giving and compiling of information that forms a portion of the CCN application. This includes studying all gathered information and environmental and routing constraints. After the final route is

selected, Brazos Electric anticipates construction would start approximately a year later. The entire process – from proposal to breaking ground – typically takes around three and a half years. The CCN application process and typical time frames for each step of the process are described in the attached handout labeled *Licensing Process for New Transmission Facilities*. Based on Brazos Electric’s projected in-service date of winter 2027, Brazos Electric would anticipate that if the CCN application is approved by the PUCT, construction would begin in approximately spring 2027.

Will directly affected landowners be informed of the filing of the CCN application?

Yes. A formal notice (via first class mail) of the CCN application filing will be provided to any property owner whose land is crossed by any alternative route. In addition, a formal notice (via first class mail) of the CCN application filing will also be provided to any property owner who has a habitable structure within 300 feet of the centerline of any alternative route. Property ownership for these notices is determined by current Lampasas and Coryell counties tax records.

In addition, public notice will be provided in newspapers of general circulation within Lampasas and Coryell counties at the time the CCN application is filed. Finally, if a route for the proposed transmission line is ordered by the PUCT, a formal notice (via first class mail) detailing the outcome will be sent to the same landowners who were provided formal notice of the CCN application filing.

Are there any health concerns related to this project?

According to the Environmental Protection Agency (EPA), “[t]he general scientific consensus is that, thus far, the evidence available is weak and is not sufficient to establish a definitive cause-effect relationship” between electric and magnetic fields (EMF) and adverse health effects (www.epa.gov/radtown/power-lines.html). In addition, the CCN application must comply with the PUCT’s routing requirements, which address a variety of issues, including environmental and health concerns.

Will this project have an adverse impact on property values in the study area?

As described in a recent research study published by Dr. Thomas O. Jackson and Jennifer Pitts, numerous empirical studies performed nationwide have shown that transmission lines have no significant effect on property values (*The Effect of Electric Transmission Lines on Property Values: A Literature Review*, Journal of Real Estate Literature, Volume 18, Number 2, 2010).