The South Loop Project
Bringing More Available and Reliable Service to Brazos County

Story by Keri Honea. Photos by Brittany Horton and Allen Wood.

As those in the Snook and Wellborn areas have most likely noticed, Bryan Texas Utilities (BTU) is currently expanding. In an effort to make BTU service even more reliable in these regions, the utility is building 30 miles of brand new transmission lines and two new substations in the Wellborn area: the Koppe Bridge Substation off I & GN Road and the Wellborn Substation located off 2154. The new transmission lines will support 138 kilovolts (kV) of power, and some of the existing lines in the area will be upgraded to this voltage. Collectively, this massive undertaking of the new transmission lines, the new substations and the upgraded transmission lines is called the South Loop Project.

Scope of the New Transmission Line

“The new transmission line will start on the west side of our system—the Thompson Creek Substation, which is just off Highway 47—and run along FM60 to the Snook Substation, which is where FM 50 and FM 60 intersect,” James Tanneberger, BTU Division Manager of Transmission, explained. “We are also giving two of the existing substations an upgrade to handle the new 138kV incoming line. These substations currently only support 69KV transmission.”

From the Snook Substation, the new transmission line will run southeast along FM 50 and turn at CR 277 in Burleson County, head northeast, and cross the Brazos River towards Wellborn. There, near the intersection of I & GN Road and Koppe Bridge Road, the Koppe Bridge Substation will be built, and then the line will run south down FM 2154 approximately six miles to the site of the future Wellborn Substation. The Wellborn Substation site was placed in the middle of an existing 69kV transmission line that runs from Millican Substation to the Greens Prairie Substation.

The existing 69kV line that travels from the new Wellborn Substation to the Greens Prairie Substation will be upgraded to 138kV, which will require larger equipment to support the higher voltage. The Greens Prairie Substation will also be modified with additional structures and equipment to help accommodate the new line. The transmission line from Wellborn to Millican, however, will remain at the original 69kV.

Purpose of the South Loop Project

“The main reason for the South Loop Project is to improve transmission reliability and the availability of service. Completing a full looped transmission system, South Loop and North Loop, will improve BTU’s transmission reliability ensuring that there are multiple feeds to each substation instead of a single line, which in turn will support the growing load in the system,” Mr. Tanneberger elaborated. “We knew we had to build a substation [Koppe Bridge Substation] in the Wellborn area to accommodate the growing load there.”

In order for that to happen, BTU had to build a new transmission line to connect this new substation to the system. However, since BTU prefers to have two lines coming into almost every substation, additional planning and construction is required.

“With two lines,” Mr. Tanneberger explained, “if one line goes down, the other line will pick up and power is less likely to be lost in that location.”

With all of these plans in place, the Koppe Bridge portion of the South Loop Project is by far the most extensive of all. As such, Mr. Tanneberger calls the Koppe Bridge...
Substation plans the “meat” of the entire South Loop Project.

Once completed, the loop around the south end of the system will tie all of BTU service in these regions into the larger BTU grid. When all is said and done, the project will vastly improve the reliability and availability of service in the BTU service territory.

“As growth continues in the southern part of BTU’s system, we can serve the load and serve it reliably,” Mr. Tanneberger emphasized.

**South Loop Project Timeline**

The substations required BTU to purchase property and electrical row easements before any construction could begin. So in late 2009 and early 2010, BTU began securing the land and easements from the landowners. The easements allow the landowners to still own their property, while simultaneously giving BTU permission to build the transmission lines on the land. For those interested, many of these easements were discussed in BTU’s past Board of Directors Reports.

BTU started construction on the two new substations in March 2011. For the Koppe Bridge Substation, the site has been cleared and an access road has already been built. The Wellborn Substation has also been cleared and an access road is under construction.

The rest of the South Loop Project is still in the design and materials phase, and will move to full construction in June 2012. The entire project is scheduled to be completed in July 2013.

The infographic on the following page illustrates the planned South Loop enhancements. For any questions regarding the status of this project, please visit the BTU website at www.btutilities.com.

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