



August 17, 2010

Chairman Barry T. Smitherman  
Public Utility Commission of Texas  
1701 N. Congress Avenue  
Austin, Texas 78711

Dear Chairman Smitherman:

Pursuant to your request of June 1, 2010,<sup>1</sup> ERCOT has completed a thorough re-evaluation of the need for the Gillespie to Newton transmission circuit included in Scenario 2 of the CREZ Transmission Optimization (CTO) Study filed by ERCOT in Public Utility Commission of Texas (PUCT) Docket No. 33672. As requested in your letter, ERCOT staff accounted for all transmission projects, both planned and completed, in evaluating the need for the Gillespie to Newton circuit and the cost-effectiveness of any potential alternatives to this circuit.

ERCOT engineers evaluated the need for the Gillespie to Newton circuit using model representations of the ERCOT transmission system that included all planned and existing transmission infrastructure (69 kV and above). These models indicate that removing the Gillespie to Newton circuit from the CREZ Transmission Plan (CTP) results in an increase in overall expected wind generation curtailment of 0.9%, equivalent to a reduction of 598 GWh of wind energy per year. This increased curtailment indicates that the Gillespie to Newton circuit, or a suitable alternative, is needed in order to achieve the level of wind curtailment that was acceptable for the CTP.

Given this result, ERCOT developed a wide range of potential alternatives to reduce this curtailment to the level that was acceptable for the CTP in order to determine the cost-effectiveness of the Gillespie to Newton circuit. These alternative solutions included upgrades of existing infrastructure, new 345-kV circuits, incorporation of privately owned and operated transmission investments, and other proposed options provided by ERCOT stakeholders through the Regional Planning Group (RPG) process.

The cost-effectiveness of 28 potential alternative solutions were compared using planning-level cost estimates consistent with data listed in Table 3 of the CTO Study report and steady-state analysis of expected wind curtailment. Of these solutions, the most cost-effective solutions were analyzed for

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<sup>1</sup> See Chairman Barry T. Smitherman's Response to Comments of H.B. "Trip" Doggett, Docket Nos. 37448 and 33672 (June 1, 2010).

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stability following transient events, using the latest dynamic stability databases developed as part of the CREZ Reactive Study being conducted concurrently by ABB, Inc. Through this analysis, the lowest cost alternative that provided similar wind curtailment to that provided by the CTP was identified.

This analysis conducted by ERCOT indicates that the most cost-effective alternative to the Gillespie to Newton circuit is the reconductoring of the existing 138-kV circuits listed below:

- The circuits from Killeen (bus 3423) to Killeen Elm (bus 3618), approximately 7 miles of circuits, to achieve a rate B of 400 MVA. These circuits are owned and operated by Oncor Electric Delivery; and,
- The circuits from Kendall (bus 7152) to Miller Creek (bus 7479), approximately 40 miles of circuits, to achieve a rate B of 440 MVA, and the circuits from Miller Creek (bus 7479) to Paleface (bus 7476), approximately 17 miles of circuits, to achieve a rate B of 220 MVA. These circuits are owned and operated by the Lower Colorado River Authority (LCRA).

These improvements will reduce congestion near the Kendall and Killeen substations and achieve the effectiveness of the overall CTP in the CTO Study. ERCOT's planning-level estimate of the aggregate cost of these upgrades is approximately \$39 million. As a comparison, the cost of the Gillespie to Newton project was estimated in the CTO Study to be approximately \$136 million. Based on available information, ERCOT does not believe that upgrading the 138-kV circuits listed above will require modification of the respective Transmission Owner's Certificate of Convenience and Necessity (CCN).

As noted on page 36 of the CTO Study, several options were considered as part of the original CTO Study to relieve transmission congestion in the vicinity of the Kendall substation. The circuit connecting this substation with the Killeen substation, through the Newton switching station, was selected because similar projects had been shown to have system reliability benefits in long-range studies completed by both ERCOT and LCRA. It is important to note that modeling analysis conducted by ERCOT as part of this reassessment of the Gillespie to Newton circuit confirms that as loads grow in the Hill Country and nearby areas, the Gillespie to Newton circuit would provide more system operational flexibility and greater support for long-term system reliability compared to the 138-kV improvements identified as part of this reassessment.

The Kendall to Newton circuits were included in the CTP because they relieved congestion due to wind generation near the Kendall and Killeen substations in a way that supported the long-range need for reliable electric service to the Hill Country area. No other circuits in the CTP were justified in part based on long-range system needs. As such, the modification to the CTP identified in this reassessment represents a unique opportunity to reduce the overall cost of the CTP transmission improvements. The potential savings noted in this reassessment (comparing the identified 138-kV upgrades to the Gillespie to Newton circuit) are a direct result of foregoing potential long-range system benefits for a near-term, less-expensive solution.

If the Commission chooses to alter the CTP to include these 138-kV improvements in lieu of the Gillespie to Newton circuit, ERCOT believes that the decision to implement these improvements could be delayed

until the upgrades are actually needed, since these upgrades may not require CCN modifications and could, therefore, be completed relatively quickly. By delaying the decision to implement these projects, the Commission would allow ERCOT to re-evaluate the cost-effectiveness of these solutions annually through the five-year planning process, taking into account future changes in the overall transmission system. As wind generation capacity increases on the transmission system and the expected congestion at the Kendall and Killeen substations noted in the CTO study and in this reassessment becomes evident in the modeling analysis conducted as part of the ERCOT five-year transmission planning process, the most cost-effective upgrades can be endorsed and implemented. ERCOT will coordinate with the respective Transmission Owners to determine the required construction time for these projects and to ensure that the expected congestion can be mitigated in a timely manner.

This written response, along with a copy of your letter, is being filed in PUCT Docket Nos. 33672 and 37448. ERCOT will be available at the August 19, 2010, Open Meeting to address any further questions that the Commission has regarding this matter.

Thank you for your patience throughout this re-evaluation process.

Sincerely,



H.B. "Trip" Doggett  
President and Chief Executive Officer

cc: Office of the Governor

Office of the Lieutenant Governor

Office of the Speaker

Chairman Troy Fraser, Senate Natural Resources Committee

Chairman John Carona, Senate Business and Commerce Committee

Chairman Burt Solomons, House State Affairs Committee

Office of State Representative Harvey Hilderbran

Commissioner Donna L. Nelson

Commissioner Ken W. Anderson, Jr.

Barry T. Smitherman  
Chairman



Rick Perry  
Governor

## Public Utility Commission of Texas

June 1, 2010

Mr. H. B. "Trip" Doggett  
President and Chief Executive Officer  
ERCOT  
7620 Metro Center Drive  
Austin, Texas 78744

Dear Trip:

Although I raised this issue at the EROCT Board of Directors meeting on May 18, 2010, I want to reiterate my request for ERCOT staff to thoroughly re-evaluate the need for the Gillespie to Newton transmission line as included in Scenario 2 of the CREZ Transmission Optimization Study filed by ERCOT in Docket No. 33672.

ERCOT staff did provide an explanation of the continued need for the Gillespie to Newton line, as it was included in the original CTO Study, by way of a letter dated May 12, 2010 (see attached). However, several other non-CREZ transmission lines are planned for or under construction in the general area, including the Clear Springs to Salado line and the recently-approved Bell County east to TNP One line. In addition, the recently-completed, private NextEra "gen-tie," which runs from the Horse Hollow Wind Energy Center in Taylor and Nolan Counties to the Kendall substation, may have changed some of the original assumptions regarding congestion at the Kendall substation. Also, if congestion at the Kendall substation is a concern, ERCOT staff should consider whether an additional circuit installed along existing lines from Kendall to Cagnon or Kendall to Hays is a possible solution.

Trip, I would like the assurance from ERCOT planning staff that all projects, both constructed and planned, are taken into account when evaluating whether or not the Gillespie to Newton line is still required.

Thank you for your assistance and I appreciate you and your staff's hard work on this issue.

Sincerely,

A handwritten signature in black ink, appearing to be "B. Smitherman".

Barry T. Smitherman

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May 12, 2010

Chairman Barry T. Smitherman  
Commissioner Donna L. Nelson  
Commissioner Kenneth W. Anderson, Jr.  
1701 N. Congress Ave.  
P.O. Box 13326  
Austin, Texas 78711-3326

Re: Docket No. 37448 - Follow-Up Information in Response to Questions at the April 23, 2010 Open Meeting Discussion regarding Docket No. 37448, Application of LCRA Transmission Services Corporation to Amend its Certificate of Convenience and Necessity for the Gillespie-to-Newton 345-kV Competitive Renewable Energy Zone (CREZ) Transmission Line in Gillespie, Llano, San Saba, Burnet, and Lampasas Counties, Texas

Dear Commissioners:

Per your request at the April 23, 2010, Open Meeting of the Public Utility Commission of Texas (PUCT), the Electric Reliability Council of Texas, Inc. (ERCOT) is providing follow-up information in response to the questions that Chairman Smitherman posed to Dan Woodfin, Director of System Planning at ERCOT, regarding the Gillespie-to-Newton circuit in Docket No. 37448. Specifically, Chairman Smitherman asked the following three questions:

- 1) Is the Gillespie-to-Newton circuit still necessary given changes in system conditions since the completion of the CREZ Transmission Optimization (CTO) Study?
- 2) Is the connection of this circuit into the Gillespie substation necessary or could the circuit directly connect into the Kendall substation?
- 3) Can the Newton substation be moved?

The over-arching goal of the CTO Study was to develop cost-effective transmission solutions for specified levels of wind generation in the CREZs. During the study development process,

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transmission element in the recommended plans to ensure that each transmission element was necessary. All unnecessary transmission elements were removed from the CREZ Transmission Plan (CTP) during the study development process. As a result of this analysis, it is not possible to remove any element or any proposed connection to the existing ERCOT system in the CTP without affecting the overall capability of the CTP.

The Kendall-to-Newton circuit described in the CTP consists of the Kendall-to-Gillespie and Gillespie-to-Newton circuits. ERCOT discussed the need for the Kendall-to-Newton circuit on pg. 36 of the CTO Study that was filed in PUCT Docket No. 33672. The CTO Study states that a new 345-kV circuit from Kendall to another load area is necessary to relieve congestion under high wind conditions on the 138-kV circuits leaving the Kendall substation. The Kendall-to-Newton circuit was selected due to cost-effectiveness and consistency with the long-term needs of the Hill Country region. Nothing has occurred to change the need for the circuit as determined in Docket No. 33672. Furthermore, the effectiveness of related circuits, including the Big Hill (McCamey D)-to-Kendall circuit, that are necessary to relieve congestion from existing wind generation, will be reduced until the Gillespie-to-Newton circuit is built.

The connection of the Kendall-to-Newton circuit into the Gillespie substation, which serves as a connection point for multiple 138-kV circuits serving load in the nearby communities, is essential to support the overall functionality of the Kendall-to-Newton circuit. A substitute connection to the load served from the 138-kV system in this area, such as a connection to the Ferguson substation, could be developed, but an alternative connection point would be more expensive than connecting into the Gillespie substation and may require additional new 138-kV rights-of-way (ROWs). If the Commission chooses to pursue an alternative connection point and remove the Gillespie substation from the CTP, ERCOT requests legal guidance from the Commission as the Final Orders in PUCT Docket Nos. 37928 and 37902<sup>1</sup> may not provide ERCOT with the flexibility to make this modification.

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<sup>1</sup> See Priority Projects Severed from Docket No. 37902 (Remand of Docket No. 35665 (Commission Staff's Petition for Selection of Entities Responsible for Transmission Improvements Necessary to Deliver Renewable Energy From Competitive Renewable Energy Zones), Docket No. 37928 at 27 (February 25, 2010); Remand of Docket No. 35665 (Commission Staff's Petition for Selection of Entities Responsible for Transmission Improvements Necessary to Deliver Renewable Energy From Competitive Renewable Energy Zones), Docket No. 37902 at 30 (March 30, 2010).

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From a system functionality perspective, the location of the Newton substation can be moved several miles in either direction along the line between Brown and Killeen without adversely affecting the capability of the overall CTP, as long as the topology of the CTP (i.e., the way the circuits are connected into the Newton Substation), is not altered by the change in location.

ERCOT appreciates the opportunity to provide follow-up information in response to Chairman Smitherman's questions about LCRA's Gillespie-to-Newton project. Dan Woodfin will be available at the May 14, 2010 open meeting to address any further questions that you may have regarding this matter.

Sincerely,



Matt Morais  
Assistant General Counsel