



PUC Docket No. 38354
 SOAH Docket No. 347-10-5546
 Application of LCRA Transmission Services Corporation
 to Amend a Certificate of Convenience and Necessity
 for the McCamey D to Kendall to Gillespie 345-KV CREZ
 Transmission Line in Schleicher, Sutton, Menard, Kimble,
 Mason, Gillespie, Kerr, and Kendall Counties

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September 24, 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 August 26, 2010,¹ ERCOT has completed a thorough re-evaluation of the need for the McCamey D² to Kendall and Kendall to Gillespie transmission circuits included in Scenario 2 of the CREZ Transmission Optimization (CTO) Study filed by ERCOT in Public Utility Commission of Texas (PUCT) Docket No. 33672. ERCOT conducted this analysis in a similar manner to its recently completed re-evaluation of the Gillespie to Newton circuit: all transmission projects in the ERCOT system, both planned and completed, were included in the system simulation models used to evaluate the need for these circuits and the effectiveness of any potential alternatives. All circuits designated in the CREZ Transmission Plan (CTP) approved in PUCT Docket No. 33672 were included in these models, except for the Gillespie to Newton circuit, for which lower-cost alternative projects were identified through the above-mentioned ERCOT analysis.³

Following the guidelines in your letter, ERCOT did not evaluate the benefits of increasing the voltage of existing 138-kV circuits in the study area. ERCOT evaluated numerous potential alternatives, including several possible alternatives that incorporated the NextEra Energy Resources, Inc. (NextEra) privately-owned generation-tie circuit.

¹ See Chairman Barry T. Smitherman's Letter to H.B. "Trip" Doggett, Docket No. 38354 (August 26, 2010).

² The McCamey D substation is now known as the Big Hill substation.

³ 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). See H.B. "Trip" Doggett's Response Letter to Chairman Smitherman, Docket Nos. 33672 and 38577 (August 17, 2010); ERCOT's Re-evaluation of the Need for the Gillespie to Newton CREZ Transmission Line and Analysis of Alternative Solutions, Docket No. 38577 (September 23, 2010).

2410

ERCOT engineers evaluated the need for the McCamey D to Kendall and Kendall to Gillespie circuits using model representations of the ERCOT transmission system that included all planned and existing transmission infrastructure (69 kV and above).⁴ Removing the McCamey D to Kendall and Kendall to Gillespie circuits increases wind generation curtailment by 4.6%, a reduction of 3,110 GWh of wind generation per year⁵. This increased wind generation curtailment indicates that simply removing these circuits from the CTP is not acceptable, and that a suitable set of alternatives are needed in order to achieve the level of wind generation curtailment that was acceptable for the CTP.

Given this result, ERCOT developed a range of potential alternatives to reduce wind generation curtailment in the model output to the level that was acceptable for the CTP in order to determine the cost-effectiveness of the McCamey D to Kendall and Kendall to Gillespie circuits. ERCOT solicited alternatives through the Regional Planning group (RPG) process; potential solutions were submitted by various parties to the RPG, and additional solutions were developed by ERCOT staff. These alternative solutions included upgrades of existing transmission infrastructure, new 345-kV circuits, and incorporation of the NextEra generation-tie circuit.

Using a similar methodology to the previous ERCOT analysis of the Gillespie to Newton circuit, the results of potential alternative solutions were compared to the original CTP using a model that simulates system operations across all hours of the year. The estimated capital costs of any alternatives that produced acceptable levels of wind generation curtailment were compared to solutions designated in the CTP, and the lowest cost viable alternative was analyzed for stability following transient events, using the latest dynamic stability databases developed as part of the CREZ Reactive Study being conducted concurrently by ABB, Inc. Without conducting dynamic analysis, it cannot be determined if an alternative that is significantly different from the original CTP represents a viable, stable solution. Through this set of analyses, the lowest-cost acceptable alternative that provides similar wind generation curtailment to that of the CTP was identified.

The results of the analysis show that the Kendall to Gillespie line can be avoided by the installation of an additional 345-kV/138-kV autotransformer at the Kendall substation, assuming the Gillespie to Newton circuit is replaced with the 138-kV transmission improvements identified in ERCOT's previous study. This alternative to the Kendall to Gillespie line was tentatively identified in the previous ERCOT analysis of the Gillespie to Newton circuit but was re-evaluated in the present study and found to be cost-effective. With the McCamey D to Kendall circuit, or a similar alternative, in-service, along with the 138-kV improvements near the Killeen and Kendall substations identified in the previous ERCOT analysis of the Gillespie to Newton circuit, the installation of an additional 345-kV/138-kV autotransformer at the

⁴ The lower-cost alternatives identified in ERCOT's Gillespie to Newton analysis in footnote 2 of this letter were included in place of the Gillespie-Newton circuit in this analysis.

⁵ If the NextEra wind units are assumed to be connected through their private generation-tie circuit to the Kendall substation, wind generation curtailment in this case would increase by 2.75% from the base case, a reduction of 1,834 GWh of wind generation annually.

Kendall substation (connecting buses 7046 and 7152) at a cost of approximately \$8 million, as compared to the estimated \$54 million cost of the Kendall to Gillespie line and the new 345-kV substation at Gillespie included in the CTO Study, is a cost-effective replacement for the Kendall to Gillespie circuit. Following the completion of the previous study of the Gillespie to Newton circuit, this option was evaluated for thermal overloads and voltage violations under peak load conditions using steady-state contingency analysis, and for stability following transient events to ensure the reliability of the system was maintained with this option.

No effective alternatives to the McCamey D to Kendall line were identified in this analysis. The two McCamey D to Kendall circuits represent the southern-most west-to-east connection in the CTP, and the lowest impedance path for generation in the McCamey area, located west of the proposed McCamey D substation, to load centers. These circuits, in the CTP, are rated at 3,200 amperes each, for a total of 6,400 amperes (the conductor rating will be approximately 5,000 amperes each, but the series compensation equipment on these circuits will be rated at 3,200 amperes). There are no other 345-kV circuits that provide a path similar to the McCamey D to Kendall circuits.

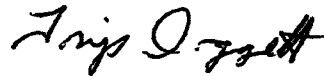
The distance between the McCamey D area (south of San Angelo, Texas) and the Kendall substation is too far for a significant amount of power to flow on 138-kV circuits. ERCOT staff evaluated the potential benefits of upgrading the existing 138-kV circuits from San Angelo to San Antonio, with the voltage of the upgraded lines remaining at 138kV. In this scenario, upgrades of approximately 430 miles of 138-kV circuits did not replace the capability of the McCamey D to Kendall circuits.

The NextEra generation-tie, single-circuit line has one of the same end-points as the McCamey D to Kendall circuit, but the other end of this circuit currently connects to the NextEra wind generation facilities south of Abilene, Texas. While the current rating of this line is only 2,900 amperes, some alternatives proposed by NextEra indicated that the line could be upgraded to as much as 3,480 amperes. This is approximately one-half of the rating of the McCamey D to Kendall circuits. NextEra and other parties proposed options to connect this circuit at various locations to the existing ERCOT transmission grid; ERCOT staff explored these options and other options in order to determine the viability of substituting the NextEra generation-tie circuit for some or all of the McCamey D to Kendall circuits. Without at least one of the 345-kV circuits connecting McCamey D to Kendall as included in the CTP, none of the options evaluated provided sufficient capacity to reduce wind generation curtailment to the level that was acceptable for the CTP. As no viable options to the McCamey D to Kendall circuits were identified in this analysis, no alternative configurations were analyzed for system stability following transient events.

In summary, ERCOT has determined that the installation of an additional 345-kV/138-kV autotransformer at the Kendall substation is a cost-effective alternative to the Kendall to Gillespie circuit, assuming that the 138-kV transmission improvements identified as alternatives to the Gillespie to Newton circuit are completed. However, ERCOT did not identify any cost-effective alternatives to the McCamey D to Kendall circuits.

This written response, along with a copy of your letter, is being filed in PUCT Docket No. 38354. ERCOT will be available at the next Open Meeting to address any further questions that the Commission may have regarding this matter.

Sincerely,

Handwritten signature of Trip Doggett in black ink.

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

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August 26, 2010

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

Dear Trip:

Thanks again for the good work recently performed by your staff in the re-evaluation of the Gillespie to Newton CREZ line. As you know, the Commission opened a new docket last Thursday so that we could receive all of ERCOT's work supporting its conclusions in this matter, as well as receive comments from any interested parties.

Recently, I received the attached letter from Chairman Fraser. As you can read for yourself, Senator Fraser asked me to ask ERCOT to perform an analysis (like the one you all did on the Gillespie to Newton line) to determine the continued need for the McCamey D to Kendall to Gillespie CREZ line. By way of this letter, I am asking that you perform such analysis with the following caveats;

First, do not consider upgrading existing transmission infrastructure that is presently contemplated by LCRA as a "route option" in CREZ Docket # 38354. For example, in Docket # 38354, LCRA has presented Routes MK 22, MK 23, and MK 24, (each of which uses "the P segments"). These "P segment" Routes would envision building a 345 KV line paralleling an existing AEP 138 KV transmission line, from Fredericksburg to Mason to Menard and then on to the proposed McCamey D substation. The landowners and other interested parties along this route (and all the other suggested routes) are presently litigating route selection at SOAH and I believe it would be inappropriate for ERCOT, by its analysis, to favor one route over any of the other potential routes that are part of that docket. Also, any analysis performed by ERCOT, (and the communication of that analysis), which incorporates routes options presently found in Docket # 38354, could be considered an inappropriate *ex parte* conversation.

Second, conduct your analysis with, and without, the inclusion of the NEXtera Energy privately owned "gentie". As you know, NEXtera has constructed a transmission line, known as the "Texas Clean Energy Express," that runs roughly from its wind farms in southwest Taylor County to the Kendall substation northwest of San Antonio. At this point, we do not know if NEXtera is willing to place the line into public service, or sell it to another transmission service

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provider who would place it into public service; nor do we know at what price NEXTEra would be willing to sell the line. We also do not know if the specifications of the line, i.e., the height of the poles, the width of the right-of-way, the type of wire used, etc., meet ERCOT's transmission requirements. Therefore, I don't believe you can make an absolute assumption that this private line will be available for public use. Accordingly, run one analysis assuming the availability of the line and one analysis assuming that the line is not available.

Trip, I hope my directions in this matter are clear enough for ERCOT to proceed with its work. If you have any questions or comments, please contact me.

Sincerely

A handwritten signature in black ink, appearing to read 'B. Smitherman', with a stylized flourish at the end.

Barry T. Smitherman

Cc:

Senator Troy Fraser

Commissioner Donna Nelson

Commissioner Kenneth W. Anderson, Jr.

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The Senate of The State of Texas



TROY FRASER

August 19, 2010

Barry Smitherman, Chairman
Public Utility Commission
PO Box 13326
Austin, Texas 78711-3326

Dear Chairman:

I want to thank you for asking the Electric Reliability Council of Texas (ERCOT) to determine if the Gillespie to Newton Competitive Renewable Energy Zone (CREZ) project was still necessary. By taking another look at this project and finding alternatives, we have been able to reduce the cost the CREZ project to the ratepayers.

The proposed CREZ line running from McCamey D to Kendall to Gillespie continues to raise concerns among landowners and communities throughout the hill country. Even though many of my constituents are questioning the need for this transmission line, you have stated that this line helps alleviate current congestion problems and adds capacity for new generation.

However, I believe we owe it to the people potentially impacted by the McCamey D to Kendall to Gillespie line to look at all our options in this project. I am requesting the Public Utility Commission instruct ERCOT to review and consider alternatives to building a brand new line. One alternative may be the use of the recently built NextEra Gen-Tie line that runs between the Abilene area and Kendall County.

I continue to favor the use of existing rights of way and state highway rights of way in choosing routes. I was surprised that LCRA TSC submitted a proposal on the McCamey D to Kendall portion of the route that only used existing transmission and highway rights of way for one third of the project.

I understand that we must ensure that the electric grid continues to function efficiently. However, it is imperative that the state takes the time to get decisions right on how to achieve that goal.

Sincerely,


Troy Fraser
State Senator



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