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APPLICATION OF THE CITY OF GARLAND TO AMEND A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE RUSK TO PANOLA DOUBLE-CIRCUIT 345-KV TRANSMISSION LINE IN RUSK AND PANOLA COUNTIES	§ § § § § § §	PUBLIC UTILITY COMMISSION OF TEXAS
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COMMISSION STAFF'S ADDITIONAL BRIEFING

COMES NOW the Staff (Staff) of the Public Utility Commission of Texas (Commission), representing the public interest, and files this Brief in response to the Commission's Order Requesting Briefing. In support thereof, Staff shows the following:

I. INTRODUCTION

On August 18, 2016, the Commission requested briefing regarding the possibility that the Commission order Southern Cross LLC's (Southern Cross) proposed DC-tie (Southern Cross DC Tie) to operate below the Electric Reliability Council of Texas, Inc.'s (ERCOT) current most severe single contingency (MSSC) of 1,375 MW until ERCOT completes any required studies and implements any new standards and protocols. The Commission ordered briefs to be submitted by August 22, 2016. Therefore, this brief is timely filed.

II. STAFF'S POSITION

Staff is limiting its argument in this brief to the single specific topic of the Commission's August 18, 2016 Order. However, Staff continues to recommend that the conditions included in the Proposal for Decision (PFD), Chairman Nelson's August 17, 2016 memo, and Staff's exceptions to the PFD be addressed prior to energization of the Garland Project, the majority of which are unaffected by the MSSC.

The Commission has the legal authority to condition its approval of the City of Garland's (Garland) application on Southern Cross's DC-tie operating below ERCOT's current MSSC until ERCOT implements the necessary standards and protocols for it to operate above 1,375 MW. Nothing in PURA or the FERC Order¹ establishes a minimum level of operation for Southern Cross's proposed DC-tie. Not only does the Commission have the authority to do so, but it is in the public interest that the Southern Cross DC Tie be operated below 1,375 MW until ERCOT studies and implements appropriate protocols that manage the contingencies that accompany a power flow of such magnitude.

III. ARGUMENT

A. Neither PURA § 37.051(c-2) nor the relevant FERC Order prevent the Commission from ordering Southern Cross to operate below ERCOT's current MSSC until ERCOT implements the necessary standards and protocols.

Under section 37.051(c-2) of the Public Utility Regulatory Act (PURA),² the Commission is required to approve Southern Cross's proposed DC-tie in 185-days. But the same section also permits the Commission to 'prescribe reasonable conditions to protect the public interest that are consistent with the [FERC Order]. Limiting the power flow is just such a condition that is consistent with PURA and the FERC Order. First, while the FERC Order and underlying settlement contemplate a DC-tie that has 'transmission capacity of up to 3000 MW, neither the FERC Order nor settlement specifies a *minimum* amount of transmission capacity.³ Second, the FERC Order takes a very narrow approach to reviewing reliability. The FERC Order focuses on identifying facilities that must be constructed to safely and reliably interconnect the proposed DC-tie to the ERCOT grid.⁴ FERC did not, however, consider whether any changes would be necessary to ERCOT's rules, standards and protocols in order to

¹ *Southern Cross Transmission LLC*, 147 FERC ¶ 61,113 (2014) (directing the City of Garland to interconnect with Southern Cross's proposed transmission line) (FERC Order).

² Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-58.303 (West 2016).

³ FERC Order at P 4.

⁴ FERC Order at P 17 ("The Revised Application avers that the reliability studies have been completed and identifies the facilities that will be constructed in order to safely and reliably interconnect the Project to the ERCOT grid.¹⁷").

safely and reliably interconnect the proposed DC-tie. Nor would it have been appropriate for FERC to consider such issues as they belong squarely within this Commission's purview. This silence is a clear deferral to the Commission to determine those conditions that are necessary for a safe and reliable interconnection and protection of the public interest. Therefore, it would not be inconsistent with the FERC Order to order Southern Cross to operate below ERCOT's current MSSC until ERCOT implements the necessary standards and protocols.

B. It is in the public interest to order that the Southern Cross DC Tie operate below the current MSSC of 1,375 MW until completion by ERCOT of studies and implementation of protocols that accommodate a greater MSSC.

Limiting power flows across the proposed DC-tie until ERCOT completes certain studies and implements the necessary standards and protocols is consistent with the public interest because the evidence shows that it would protect reliability of the ERCOT transmission system. ERCOT is required under NERC Standard BAL-002-1 R3 to maintain sufficient contingency reserve to cover the loss of the MSSC in the ERCOT system. The current MSSC of 1,375 MW corresponds to the loss of one of the nuclear generators at the South Texas Project.⁵ As described by ERCOT witness, Dan Woodfin, the import of 2,000 MW establishes a new MSSC which will 'reduce the reliability margins that ERCOT is maintaining today above and beyond the [MSSC] requirements. To ensure reliability margins are maintained, ERCOT will have to procure additional ancillary services. Increasing the size of the MSSC is important because it increases operational risk by consolidating risk of loss in one location.'⁶

Similarly, the MSSC will also be 2,000 MW on the demand side. Dan Woodfin further testified that:

The export capability of 2100 MW in essence would have characteristics similar to that of a load of 2100 MW. Experiencing the loss of the DC tie while exporting 2100 MW would instantaneously send the grid frequency to a much higher value, although more detailed studies are needed to accurately estimate the peak post-contingency frequency under the expected range of system conditions. ERCOT currently does not have any ancillary services designed to address the high frequency events of such a large magnitude. If DC ties of such

⁵ Direct Testimony of Dan Woodfin, ERCOT Ex. 2 at 17:8-14 (April 27, 2016) (Woodfin Direct).

⁶ *Id.* at 20-24, and 18:1-6.

magnitude were to interconnect, ERCOT will need to investigate whether primary frequency response by the online generators coupled with the procurement of a substantially higher amount of Regulation Down service would be sufficient to moderate the frequency spike or whether it is necessary to design a new Ancillary Service that activates more quickly to return the frequency to normal bounds in order to reliably operate the grid.⁷

Southern Cross seeks to make a distinction between the current MSSC that corresponds to a nuclear reactor that runs at or near maximum output around the clock all year, and a DC-tie that imports or exports various quantities of energy at various times and under various grid conditions.⁸ Without addressing a potential increase in ancillary services cost or cost allocation which will be determined by the final order, the concern presented is what will be the effect of a 2,000 or 2,100 MW MSSC without the appropriate ERCOT studies or protocols being first in place. Other than the South Texas Project which creates an MSSC of 1,375 MW, ERCOT presently has five DC-ties with other regions: 1) a 35 MW DC-tie at Eagle Pass; 2) a 100 MW variable frequency transformer at Laredo; 3) a 300 MW DC-tie at the Railroad substation in McAllen; 4) a 220 MW DC-tie with the Southwest Power Pool (SPP) in north Texas; and, 5) a 600 MW DC-tie with SPP in east Texas.⁹ If Southern Cross wishes to energize before ERCOT completes its studies and implements appropriate protocols, it should be limited to the maximum MW that ERCOT can presently accommodate. Southern Cross understandably seeks to downplay the effects with arguments of intermittent quantities of import/export and varying grid conditions and that an analysis by Southern Cross witness, Ellen Wolfe, showed that hourly imports across the project never reached 1,000 MW.¹⁰ But, these are speculative and present a gamble with the grid. The presentation of a 'perfect storm' is entirely possible, and to permit even the possibility of losing the Southern Cross DC Tie to lightening, wind, ice, or other non-weather related event at a time when it is importing or exporting at any capacity greater than that which ERCOT can manage could be devastating without the appropriate ERCOT protocols and contingencies in place. Thus, ordering the Southern Cross DC Tie to be initially operated below

⁷ *Id.* at 18:16-23 and 19:1-6.

⁸ Rebuttal Testimony of Mark Bruce, Southern Cross Ex. 9 at 20 (May 24, 2016) (Bruce Rebuttal).

⁹ Woodfin Direct, ERCOT Ex. 2 at 6:19-23.

¹⁰ *Id.* citing Direct Testimony of Ellen Wolfe, Southern Cross Ex. 3, Exhibit EW-2 at 13 (Wolfe Direct).

the current 1,375 MW MSSC, along with all the other required conditions, will allow for reliable operation of the grid, thereby being in the public interest and falling within the conditions permissible under PURA and the FERC order.

C. Limiting capacity of the Southern Cross DC tie is not discriminatory.

Limiting the capacity of the Southern Cross DC Tie until ERCOT completes and implements certain studies is not discriminatory because the evidence shows that such an action protects ERCOT's reliability while still allowing the project to move forward. PURA § 39.001(c) prohibits the Commission from discriminating against any participant in the competitive market. The Commission must also ensure the reliability of the ERCOT transmission system. The Commission must balance its duty to protect the reliability of ERCOT while also not discriminating against any one market participant. The record in this proceeding is clear that the Southern Cross DC Tie is meaningfully different than the existing DC-ties. It is capable of importing and exporting 2000 MW into, and out of, ERCOT, and is thus significantly larger than the other DC ties. It will be privately owned, and the capacity will be sold under Southern Cross's FERC tariff to market participants that will presumably make import and export decisions based on economic arbitrage opportunities between ERCOT and the SERC region. Simply put, it presents novel reliability and policy challenges that did not exist when the existing DC-ties interconnected to ERCOT. Limiting the capacity of the Southern Cross DC Tie strikes the appropriate balance by allowing the DC-tie to become energized while still protecting ERCOT's reliability.

IV. CONCLUSION

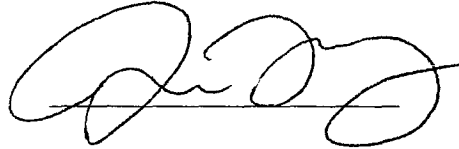
The Commission possesses the legal authority to condition its approval of the application on the Southern Cross DC Tie operating below ERCOT's current MSSC until ERCOT implements the necessary standards and protocols for it to operate above 1,375 MW. There are still several reliability and operational challenges that must be addressed before the Garland Project can be energized. Therefore, Staff continues to recommend that the Commission require all ERCOT studies, standards, and protocols to be completed assuming 2000 MW of capacity before the Garland line is energized.

Respectfully Submitted,

**PUBLIC UTILITY COMMISSION OF TEXAS
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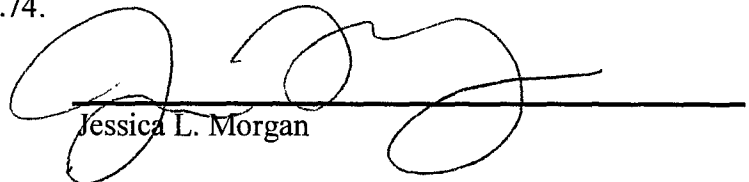


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CERTIFICATE OF SERVICE

I certify that a copy of this document will be served on all parties of record on August 22, 2016, in accordance with 16 TAC § 22.74.


Jessica L. Morgan