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**PROJECT NO. 42647**



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| **ERCOT PLANNING AND SYSTEM COSTS ASSOCIATED WITH RENEWABLE RESOURCES AND NEW LARGE DC TIES** | § § § § | **PUBLIC UTILITY COMMISSION OF TEXAS** |

# COMMENTS OF CROSS TEXAS TRANSMISSION, LLC

In response to the Request for Comments issued August 13, 2014, Cross Texas Transmission, LLC ("Cross Texas") respectfully submits the following comments. The Request for Comments identifies Proposed Questions related to renewable resources and DC Ties (within ERCOT). Cross Texas limits its comments to certain questions related to transmission planning, investment in transmission system, and market impacts of DC Ties.

## I. Treatment of DC Ties for Purposes of Planning, Operations, and Cost Responsibility

Several questions posed in the Request for Comments relate to the treatment of DC Ties in planning, operations, and cost responsibility. Cross Texas's replies to the following questions are related, and therefore the responses to them are consolidated below:

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| How should the uncertainty of whether DC Ties will be exporting or importing be addressed in transmission planning? |
| What relationship exists between ownership of transmission equipment (including converter stations) and cost responsibility for transmission upgrades? What relationship, if any, should exist? |
| Under current ERCOT Protocols, DC Ties are not currently dispatchable and therefore the load on DC Ties cannot be changed by Security Constrained Economic Dispatch (SCED). Should the ERCOT Protocols be rewritten to allow DC Ties to be dispatchable? |
| To what extent, if at all, should a DC Tie owner be required to bear cost responsibility for transmission upgrades by TSPs that are required to accommodate power flows over the DC Tie? |
| If DC Tie owners are required to bear some portion of the costs of transmission system investments to accommodate power flows over the DC Tie, what mechanisms and methodologies should be used to determine and assign those costs? Can the Commission implement these mechanisms and methodologies under existing law? |

Cross Texas believes the determinative factor on how to treat a new DC Tie for planning, operations, and cost responsibility should be how the facility is paid for and designated by the facility owner. Three scenarios are discussed below.



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First, if a DC Tie is paid for by ERCOT ratepayers and dedicated to public service, it should be allowed to be dispatched to optimize the ERCOT system in transmission planning. It is assumed that such a dedicated facility would only be built for the purpose of importing power into ERCOT. That is not to say the facility will be limited to that purpose in operations or during an emergency, but would define how the facility should be treated in planning and for cost allocation. If, for example, a DC Tie is paid for by ERCOT ratepayers and is linked to a firm generation resource in the adjacent market, the DC Tie should be treated as a firm resource for import in transmission planning, and dispatchable in SCED. Such a facility should not have responsibility for transmission upgrades, similar to a generator.

Second, if a DC Tie is paid for by ratepayers outside of ERCOT (such as ratepayers in SPP, MISO, WECC, or elsewhere) then it should be dispatched in accordance with the needs of that system and cannot be relied on for support in ERCOT. Such a DC Tie should be modeled in ERCOT transmission planning under a worst-case assumption – exporting firm power from ERCOT to serve the needs of another system's customers. It is assumed that such a facility will only be built to export power from ERCOT into another system. The facility owner should be able to elect either 1) an economy energy only tie, in which case the owner will not be responsible for transmission upgrades, but the facility will be curtailable in real time operations; or 2) a firm export tie, in which case the owner will be responsible for a pro-rata share of transmission system costs, charged at a transmission service rate based on the overall Total ERCOT Postage Stamp Rate set forth in the matrix, and will have firm withdrawal rights and the facility will be modeled as firm load in transmission planning.[1] TSPs that receive such transmission revenue will credit such revenue as a reduction in its transmission cost of service in accordance with Commission Substantive Rule 25.192(f). Again, the use of the DC Tie would not be limited during an emergency and a DC Tie with this designation should not be dispatchable in SCED.

[1] The transmission service rate for an export under Commission Substantive Rule 25.192(e) should be clarified to reflect the rate set forth in the Wholesale Transmission Service Charges for the Electric Reliability Council of Texas. The ERCOT Postage Stamp Rate ($/kW) in the matrix is an annual rate calculated as the total Transmission Cost of Service (TCOS) of all Transmission Service Providers divided by the Average 4 CP for all ERCOT load. This postage stamp rate is not based on specific transmission upgrades for a specific customer, but based on a pro rata charge for the use of the overall transmission system, and would be the appropriate rate for export as well, treating the export as a firm load.

Third, if a DC Tie is paid for as a merchant project, its treatment should be based on the rights established for the merchant project by the owner. For example, a new tie might be 1) built and paid for by a generator in another market in order to import power into ERCOT (such as the Tenaska Kiamichi facility); 2) may be for export (such as the proposed Pattern Southern Cross Project); or 3) might be for both (such as the proposed Tres Amigas Project). The treatment of a merchant facility should be no different than that of a facility paid for by ratepayers, provided the owner identify the intended use of the facility as one of the following: a) dedicated to firm import into ERCOT; b) dedicated to firm export out of ERCOT ; c) solely for transfer of economy energy; or d) dedicated to both firm import and firm export. If a merchant DC Tie is identified as being for firm import into ERCOT, it should be treated no differently than a facility paid for by ERCOT ratepayers for firm import. If a merchant DC Tie is identified as for firm export, it should be treated no differently than a facility paid for by another system's ratepayers for firm export. In addition, a merchant DC Tie may be identified as for both firm import and export, in which case it shall be responsible for obligations associated with both importing and exporting, or a merchant DC Tie may be identified as solely for economy energy with no firm rights.

## II. Impacts on the Most Severe Single Contingency (MSSC)

The Request for Comments poses the following question:

> The current ERCOT Most Severe Single Contingency (MSSC) is at about 1375 MW. If DC Ties greater than 1375 MW were installed, it is expected that the ERCOT MSSC would likely increase. Assuming this happens and that this increase would require a larger operating Responsive Reserve Service (RSS), who should pay for the increased costs of the RRS? How should increased costs be recovered?

As with its response to the first set of questions, Cross Texas does not believe there is a good reason to treat a new DC Tie any differently than any other load or resource on the system. If a new DC Tie is identified as being for export, it would not require an increase to the MSSC. In the event the DC Tie trips off-line or is otherwise removed from service it would have the same effect as a reduction in load, and could be remedied by reducing the dispatch of generation. If a new DC Tie is identified as import, and have a rating greater than the MSSC, it should be treated the same as if a new generator greater than the MSSC were to be installed. If any new supply resource were to enter the system, ERCOT may be required to increase its reserves to

reflect a change in the MSSC per the protocols and guides and the cost of any additional reserves would not be to the account of the resource which defines the MSSC. Ratepayers currently bear the risk of a new resource (generation or DC Tie) which would require a change in the MSSC, as they would have the benefit of a new large resource providing energy supply to the system.

Respectfully submitted,

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