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| PGRR Number | [077](http://www.ercot.com/mktrules/issues/PGRR077) | PGRR Title | DC Tie Planning Assumptions |

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| Date | October 1, 2020 |

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| Submitter’s Information | |
| Name | Shams Siddiqi |
| E-mail Address | [shams@crescentpower.net](mailto:shams@crescentpower.net) |
| Company | Rainbow Energy Marketing Corporation |
| Phone Number | 512-619-3532 |
| Cell Number | 512-619-3532 |
| Market Segment | Independent Power Marketer (IPM) |

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| Comments |

Rainbow Energy Marketing Corporation (REMC) submits these comments to Planning Guide Revision Request (PGRR) 077, DC Tie Planning Assumptions, to urge ERCOT Board of Directors to approve 7/29/20 REMC Comments instead of the Technical Advisory Committee (TAC) recommendation in the 9/23/20 TAC Report.

The TAC recommended PGRR077 language states that DC Tie transactions will be fully curtailed in ERCOT’s reliability planning process and therefore **no** reliability upgrade will be considered to accommodate any Direct Current Tie (DC Tie) flow even though DC Tie Load pays more than its fair share of Transmission Cost of Service (TCOS) through the export tariff.

Based on cost causation and fairness principles, the TAC recommendation only makes sense if DC Tie Load is **not** allocated any TCOS, i.e. the Public Utility Commission of Texas (PUCT) sets the export tariff to zero.

Had the export tariff been set by the PUCT to zero, REMC would find the TAC recommendation acceptable since such an approach would be consistent with cost causation and fairness principles and have the added benefit of increased societal welfare and efficiency through the removal of an inefficient barrier to trade. For example, current transmission charges for DC Tie exports of about $23/MWh during summer off-peak hours create a significant barrier to exporting off-peak energy that suppresses the opportunity for the market to address the most important price formation issue identified by Dr. William Hogan and Dr. Susan Pope[[1]](#footnote-1) – i.e. the allocation of sunk costs adversely impacting decisions to consume/export. The curtailment or bottling up of renewable energy during off-peak hours instead of exporting to neighboring grids that are willing to pay higher prices is an inefficient waste of societal resources. These exports help with resource adequacy by alleviating the impacts of price distorting production tax credits and thus address some of the main challenges facing the ERCOT market, as identified by Drs. Hogan and Pope[[2]](#footnote-2) as "those arising from increasing energy supply from subsidized renewables, as well as continuing challenges, such as transmission investment and cost recovery, and the persistent lower cost of the wholesale market’s marginal fuel (i.e. natural gas), which results in lower energy and ancillary service revenues." Of course, DC Tie imports during times of scarcity and emergencies benefit consumers in ERCOT.

However, export tariffs are currently not zero but rather at levels such that a flat (8760-hour) DC Tie Load pays 1.67 times the transmission cost paid by similar other flat Load and, unlike other Load avoiding the 4-Coincident Peak (4-CP) charges, DC Tie Load cannot avoid paying this transmission charge since it’s charged in all hours as $/MWh. Thus, DC Tie Load pays more than other Load in transmission cost and yet, according to this PGRR as recommended by TAC, **no** transmission upgrade or even slight modifications of planned transmission upgrades would be considered to reliably accommodate DC Tie Load whereas upgrades are planned for other Loads that pay no TCOS by avoiding 4-CP charges.

Southern Cross Transmission LLC (SCT) in their 9/18/20 comments to PGRR077 point out that:

* DC Tie Loads pay all of the ERCOT Settlement Charge Types assessed to other Loads in ERCOT such as Ancillary Services costs, Transmission Losses, Distribution Losses, Unaccounted for Energy (UFE), *etc*.;
* DC Tie Loads pay transmission rates for use of the ERCOT transmission system (the flat postage stamp transmission cost of service (TCOS) rate in the 5,832 hours from Hour Ending (HE) 1 Oct. 1 through HE 24 May 31) and roughly three times TCOS in the 2,928 hours from HE 1 Jun. 1 through HE 24 Sep. 30);
* The PUCT’s tariff design for transmission rates applicable to DC Tie [ex]ports does not allow DC Tie Loads to manage transmission costs under the 4-Coinc[i]dent Peak (4-CP) ratemaking methodology in the manner of large commercial and industrial consumers with highly targeted, temporary Load reduction actions during the 4-CP hours;
* The adoption of PGRR077 as recommended by ROS will codify a planning regime which will not yield recommendations to construct new transmission elements that would strengthen the system and address congestion near DC Ties. This will harm the Texas economy by reducing opportunities for profitable energy exporting, harm the U.S. economy by reducing opportunities to lower wholesale power costs in non-ERCOT regions of the country, and harm ERCOT system reliability by limiting the viability of power imports during emergency conditions; and
* When DC Tie exports pay all the same system costs as other Loads but receive no consideration in the ERCOT planning process to plan reliable transmission infrastructure to serve their Load, then second-class service is provided to a transmission customer paying first-class rates. This is a discriminatory outcome.

To provide some background on how we got here: ERCOT’s treatment of DC Tie schedules in the planning process changed with the approval of Nodal Protocol Revision Request (NPRR) 818, Allow Curtailment of Certain DC Tie Load Prior to Declaring Emergency Conditions. That NPRR was an urgent fix to minimize the inefficient and unnecessary curtailment of exports by ERCOT Operations and consequent harm to Market Participants. Power Operations Bulletin #755 issued on 9/28/16 drastically changed ERCOT's operation of the DC Ties. ERCOT at that point would not commit Resources using the Reliability Unit Commitment (RUC) process to facilitate exports and wanted a new NPRR to clarify what was already in the Nodal Protocols – that is to treat DC Tie Load like Load which includes RUC, Constraint Management Plan (CMP), and Remedial Action Scheme (RAS), to protect DC Tie Load. Since such a new NPRR would take time to work through the NPRR approval process, NPRR818 was pursued on an urgent basis to stop inefficient and unnecessary export curtailments.

NPRR818 was quickly followed up by NPRR825, Require ERCOT to Issue a DC Tie Curtailment Notice Prior to Curtailing any DC Tie Load. NPRR825 eliminated the temporary provisions of NPRR818 and reinforced treatment of DC Tie Load like Load which includes RUC, CMP and RAS to protect DC Tie Load and was initially drafted to revert back to ERCOT having to declare an Emergency Condition to curtail DC Tie Load. REMC accommodated ERCOT’s request of issuing a DC Tie Curtailment Notice instead of having to declare an Emergency Condition with the understanding (as clearly stated in the Business Case of the Board-approved NPRR825) that “Apart from when a DC Tie experiences an Outage or a system operator in a non-ERCOT Control Area requests curtailment, ERCOT would use the same processes prior to curtailing DC Tie Load by issuing a DC Tie Curtailment Notice as they would if required to declare an Emergency Condition”. ERCOT Planning and Operations plan and operate the system to avoid having to enter into an Emergency Condition. According to current planning treatment of DC Tie schedules as reflected in this PGRR as filed, by not planning for any transmission to accommodate DC Tie schedules even under base case or N-1 conditions, ERCOT is essentially ensuring that ERCOT Operations would have to issue a DC Tie Curtailment Notice (equivalent to an Emergency) to maintain reliability – an unacceptable practice inconsistent with treatment of DC Tie schedules in planning prior to NPRR818.

The Nodal Protocols have consistently made clear, starting in 2012 with NPRR405, Clarification of DC Tie Load into Operational Systems and Processes, that DC Tie Load should be treated like other Load except that, in Real-Time Emergency Conditions, DC Tie Load can be curtailed prior to curtailing other Load. Thus, for ERCOT Planning purposes, DC Tie Load should be treated exactly the same as other Load and DC Tie imports should be treated as other Generation Resources. REMC’s 7/29/20 Comments clarify this treatment of DC Tie schedules.

REMC worked diligently with ERCOT and other interested parties to develop the 7/29/20 REMC Comments to this PGRR – ERCOT is indifferent if those comments are approved or the PGRR as filed. REMC is not a voting member in ERCOT committees and, as an entity that heavily relies on trading across the DC Ties for its business in ERCOT, is uniquely and disproportionately impacted by this discriminatory treatment that benefits all other Market Participants with Load – thus facing an insurmountable challenge on this issue. REMC therefore urges the Board to approve 7/29/20 REMC Comments to this PGRR.

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| Revised Cover Page Language |

None

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| Revised Proposed Guide Language |

None

1. *Priorities for the Evolution of an Energy-Only Electricity Market Design in ERCOT*, Dr. William Hogan and Dr. Susan Pope of FTI Consulting, Inc., filed in PUCT Project No. 47199, Project to Assess Price-Formation Rules in ERCOT’s Energy-Only Market, 2017. [↑](#footnote-ref-1)
2. *Ibid*. [↑](#footnote-ref-2)