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| PGRR Number | [105](https://www.ercot.com/mktrules/issues/PGRR105) | PGRR Title | Deliverability Criteria for DC Tie Imports |
| Date of Decision | | September 7, 2023 | |
| **Action** | | Recommended Approval | |
| Timeline | | Normal | |
| Estimated Impacts | | Cost/Budgetary: None  Project Duration: No project required | |
| Proposed Effective Date | | To be determined | |
| Priority and Rank Assigned | | Not applicable | |
| Planning Guide Sections Requiring Revision | | 4.1.1.1, Planning Assumptions  4.1.1.7, Minimum Deliverability Criteria | |
| Related Documents Requiring Revision/Related Revision Requests | | None | |
| Revision Description | | This Planning Guide Revision Request (PGRR) adds Direct Current Tie (DC Tie) Resources to the list of Resources for which the minimum deliverability condition applies. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | During Winter Storm Uri, DC Tie imports played an important role in reducing the amount of Load that needed to be shed. DC Ties were importing power into ERCOT at near their maximum capacity throughout most of the winter storm. In order to ensure that such an important Resource is utilized when needed most for reliability, this PGRR modifies the reliability criteria used in evaluating the need for transmission system improvements to limit the planning assumption for DC Tie curtailment to exports, and adds DC Tie Resources to the list of Resources that have a minimum delivery condition. | |
| ROS Decision | | On 5/4/23, ROS voted unanimously to table PGRR105. All Market Segments participated in the vote.  On 6/8/23, ROS voted to recommend approval of PGRR105 as submitted. There was one abstention from the Independent Generator (Calpine) Market Segment. All Market Segments participated in the vote.  On 7/6/23, ROS voted unanimously to table PGRR105. All Market Segments participated in the vote.  On 9/7/23, ROS voted to endorse and forward to TAC the 7/6/23 ROS Report and the 6/27/23 Impact Analysis for PGRR105. There were two opposing votes from the Cooperative (LCRA) and Independent Generator (Calpine) Market Segments and seven abstentions for the Consumer (Air Liquide), Cooperative (GSEC), Independent Generator (Luminant), Independent Power Marketer (IPM) (SENA), Independent Retail Electric Provider (IREP) (2) (Reliant and Rhythm Ops) and Municipal (CPS Energy) Market Segments. All Market Segments participated in the vote. | |
| Summary of ROS Discussion | | On 5/4/23, participants reviewed PGRR105. Planning Working Group (PLWG) leadership summarized discussions at the March 22, 2023 PLWG meeting. ERCOT commented that it is neutral on the issue and noted its view that the matter is a policy decision issue.  On 6/8/23, there was no discussion.  On 7/6/23, participants raised concerns regarding cost allocation, and requested to table PGRR105 to give ERCOT an opportunity to provide clarification on the Public Utility Commission of Texas (PUCT) directives in its order concerning the DC Tie project proposed by Southern Cross.  On 9/7/23, the 8/29/23 ERCOT comments, 9/1/23 Rainbow Energy Marketing comments, and 9/1/23 Southern Spirit Transmission comments were review. Participants debated the overall proposal and the appropriate forum for considering the policy issue. Certain participants expressed concerns related to the deliverability of capacity located outside the ERCOT Region, inter-regional commercial arbitrage, negative impacts on market efficiencies, and inequitable share of transmission costs being borne by ERCOT ratepayers under the current cost allocation methodology when there would be off-system beneficiaries. Proponents of PGRR105 highlighted the value existing DC Ties provided to the ERCOT System during Winter Storm Uri and commented the proposal aligns with post-Uri policy changes. | |
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| **Opinions** | | | |
| Credit Review | | Not applicable | |
| Independent Market Monitor Opinion | | To be determined | |
| ERCOT Opinion | | To be determined | |
| ERCOT Market Impact Statement | | To be determined | |

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| Sponsor | |
| 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 | Not applicable |

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| **Market Rules Staff Contact** | |
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| **Comments Received** | |
| **Comment Author** | **Comment Summary** |
| ERCOT 082923 | Requested PGRR105 be rejected or tabled indefinitely and commented the PUCT is the appropriate forum to address the policy issue |
| Rainbow Energy Marketing 090123 | Provided the option to limit PGRR105 to existing DC Ties and let the determination of delivery criteria for new DC Ties be addressed in a separate PUCT process |
| Southern Spirit Transmission 090123 | Disagreed with the 08/29/23 ERCOT comments and argued that the stakeholder process is the most straightforward way for the policy issue to appear for the PUCT and highlighted ways that PGRR105 will enhance ERCOT System reliability and resiliency |
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| **Market Rules Notes** | |

Please note the following PGRR(s) also propose revisions to the following section(s):

* PGRR107, Related to NPRR1180, Inclusion of Forecasted Load in Planning Analyses
  + Section 4.1.1.1

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| Proposed Guide Language Revision |

4.1.1.1 Planning Assumptions

(1) A contingency loss of an element includes the loss of an element with or without a single line-to-ground or three-phase fault.

(2) A common tower outage is the contingency loss of a double-circuit transmission line consisting of two circuits sharing a tower for 0.5 miles or greater.

(3) Unavailability of a single generating unit includes an entire Combined Cycle Train, if no part of the train can operate with one of the units Off-Line as provided in the Resource Registration data.

(4) The contingency loss of a single generating unit shall include the loss of an entire Combined Cycle Train, if that is the expected consequence.

(5) The following assumptions may be applied to the SSWG base cases for use in planning studies:

(a) Reasonable variations of Load forecast;

(b) Reasonable variations of generation commitment and dispatch applicable to transmission planning analyses on a case-by-case basis may include, but are not limited to, the following methods:

(i) Production cost model simulation, security constrained optimal power flow, or similar modeling tools that analyze the ERCOT System using hourly generation dispatch assumptions;

(ii) Modeling of high levels of intermittent generation conditions; or

(iii) Modeling of low levels of or no intermittent generation conditions.

(6) Assumed Direct Current Tie (DC Tie) exports will be curtailed as necessary to meet reliability criteria in planning studies.

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| ***[PGRR098: Insert paragraph (7) below upon system implementation:]***  (7) Manual System Adjustments shall not increase the amount of consequential Load loss following a common tower outage, or the contingency loss of a single generating unit, transmission circuit, transformer, shunt device, FACTS device, or DC Tie Resource or DC Tie Load, with or without a single line-to-ground fault. |

4.1.1.7 Minimum Deliverability Criteria

(1) In conducting its planning analyses, ERCOT and each TSP shall ensure that an ERCOT-defined minimum percentage of capacity of each Resource described in paragraph (3) below can be delivered to serve peak system Load while meeting the following reliability criteria:

(a) Category P0, P1, P2-1, P3, and P7 planning events from the NERC Reliability Standard addressing Transmission System Planning Performance Requirements; and

(b) The ERCOT-specific reliability performance criteria included in Section 4.1.1.2, Reliability Performance Criteria.

(2) The minimum percentage of capacity referenced in paragraph (1) above shall be applied to each Resource’s applicable Seasonal Net Max Sustainable Rating submitted through the Resource Registration process.

(3) The minimum deliverability condition described in paragraph (1) applies to the following Resources:

(a) Any Generation Resource utilizing combined cycle, steam turbine, combustion turbine, hydro, or reciprocating engine technology;

(b) Any Energy Storage Resource (ESR) meeting an ERCOT-defined minimum duration threshold; or

(c) Any DC Tie Resource.

(4) Resources other than those described in paragraph (3) above may be redispatched as necessary to meet the requirements of this Section.

(5) ERCOT-proposed revisions to the minimum percentage of capacity or minimum duration threshold for ESRs used to implement the requirements of this Section will be recommended by the Technical Advisory Committee (TAC) and approved by the ERCOT Board.

(a) ERCOT will post the current values approved by the ERCOT Board pursuant to paragraph (5) above on the ERCOT website.