Southern Cross Transmission (SCT) Determination Summary

for Directive 10, Emergency Condition Price Formation

Date: 09/26/2018

Stakeholder Committee Input:

Qualified Scheduling Entity Managers Working Group (QMWG) 02/13/18/, 03/19/18, 05/19/18, 07/09/18;

Wholesale Market Subcommittee (WMS) 08/08/18

Technical Advisory Committee (TAC) 09/26/18

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| **Directive #10 – Emergency condition Price Formation** | **ERCOT shall study price formation issues to determine whether, to avoid the flows over the DC ties adversely affecting price formation in the ERCOT wholesale market or otherwise causing outcomes inconsistent with a properly functioning energy market, any changes to pricing within the ERCOT market during emergencies are necessary. ERCOT shall certify to the Commission when it has completed these actions.** |

**ERCOT Study:**

ERCOT has identified the following potential actions related to Direct Current (DC) Ties that may adversely affect price formation in the ERCOT wholesale market.[[1]](#footnote-1) These issues were identified by ERCOT during discussions related to Nodal Protocol Revision Request (NPRR) 626, Reliability Deployment Price Adder (formerly “ORDC Price Reversal Mitigation Enhancements”), in 2015 and NPRR 768, Revisions to Real-Time On-Line Reliability Deployment Price Adder Categories, in 2016/2017, through stakeholder discussions at several QMWG meetings and the WMS in 2018, and in consideration of written stakeholder comments related to this directive. [[2]](#footnote-2), Consistent with the direction from the PUCT, the changes in OBDRR002 to reflect the impact of RUC resources on the Operating Reserve Demand Curve (ORDC) were implemented in June 2018; however, no such ORDC impact has been implemented for actions described herein related to DC ties since the PUCT directive did not apply to such actions.

*Pricing Issues During Emergencies in ERCOT:*

1. A directive issued by ERCOT during an Energy Emergency Alert (EEA) or transmission emergency to curtail scheduled DC Tie flows from ERCOT;
2. A request by ERCOT during an EEA or transmission emergency that is accommodated by a neighboring system operator for unscheduled DC Tie flows to ERCOT;

For Item 1, the ERCOT Protocols do not include a price adjustment mechanism, and the primary effect would be a potential reduction in ERCOT prices. For Item 2, the Real-Time Online Reliability Deployment Price Adder (RTORDPA)[[3]](#footnote-3) would apply up to 1,250 MW during an EEA, with quantities greater than 1,250 MW during an EEA and for non-EEA actions having the same effect as Item 1.

*Pricing Issues During Emergencies in Neighboring Systems:*

1. A request by a neighboring system operator during an emergency that is accommodated by ERCOT for unscheduled DC Tie flows from ERCOT;
2. An emergency action by a neighboring system operator resulting in a curtailment of scheduled DC Tie flow to ERCOT;

For Item 3, the RTORPDA would apply only to the extent of reducing an otherwise positive RTORDPA to no lower than $0 (*i.e.*, the RTORDPA cannot be negative). For Item 4, the ERCOT Protocols do not include a price adjustment mechanism, and the primary effects would be a potential increase in ERCOT prices.

*Pricing Issues During Non-Emergencies in ERCOT:*

1. A directive issued by ERCOT to address local transmission system limitations in ERCOT, resulting in a curtailment of scheduled DC Tie flows to ERCOT;
2. A directive issued by ERCOT to curtail scheduled DC Tie flows from ERCOT to address local transmission system limitations in ERCOT.

For Items 5 and 6, the ERCOT Protocols do not include a price adjustment mechanism, and the primary effects would be a potential increase (Item 5) or decrease (Item 6) in ERCOT prices.

**History**

After the Public Utility Commission of Texas (PUC or Commission) issued Directive 10, NPRR 768 made adjustments to the Real-Time Online Reliability Deployment Price Adder (originally adopted in NPRR 626) to mitigate out-of-market actions that may occur during Emergency Conditions in ERCOT. Specifically, those actions associated with ERCOT requests for DC Tie imports, requests by neighboring system operators for unscheduled DC Tie exports from ERCOT, and Block Load Transfers. As part of stakeholder consideration of NPRR 768, the Protocol language was amended to cap the MW adjustment made for emergency DC Tie imports at the capacity currently available across all DC Ties (1,250 MW, Item 2), and adjustments for unscheduled DC Ties exports from ERCOT as described above for Item 3. The ERCOT Board of Directors (Board) approved NPRR 768 following a Technical Advisory Committee (TAC) vote to recommend approval of the NPRR, and both the TAC and Board votes occurred after the PUC issued its order in Docket No. 45624 approving the Certificate of Convenience and Necessity (CCN) for Southern Cross DC Tie and after the PUC issued its order in Project No. 46304 requiring ERCOT to satisfy various directives relating to the project, including the present directive regarding price formation issues.

**ERCOT Determination**

ERCOT has identified potential actions related to DC Ties that may adversely affect price formation in the ERCOT wholesale market during ERCOT Emergency Conditions, and during non-Emergency Conditions in ERCOT or during emergencies in neighboring systems. These issues have been previously considered as a part of the NPRR 626 and 768 stakeholder discussions and approval process. At this time, ERCOT has not determined a need to submit an NPRR that would modify the policy determination previously achieved in these NPRRs. However, ERCOT is prepared to participate in future stakeholder discussions upon submission of a NPRR, or upon direction from the Commission.

1. ERCOT’s study is based on a qualitative assessment of the potential pricing effects associated with the identified actions related to DC Ties. ERCOT did not perform a back-cast or a forward-looking quantitative simulation because the accuracy of the results is highly dependent upon speculative assumptions about changes in past or expected future market behavior and therefore would not provide additional value to this directive. [↑](#footnote-ref-1)
2. Commenting parties: Luminant Generation, Rainbow Energy Marketing Corporation (REMC), Texas Industrial Energy Consumers (TIEC), and Southern Cross Transmission Company <http://www.ercot.com/calendar/2018/3/19/144481-QMWG> [↑](#footnote-ref-2)
3. The RTORDPA is a real-time price adder that captures the impact of reliability deployments on energy prices for each Security-Constrained Economic Dispatch (SCED) process as detailed in ERCOT Protocols Section 6.5.7.3.1, Determination of Real-Time On-Line Reliability Deployment Price Adder, and Section 6.7.5, Real-Time Ancillary Service Imbalance Payment or Charge. [↑](#footnote-ref-3)