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PROJECT NO. 27706

REPORTS OF THE ELECTRIC § PUBLIC UTILITY COMMISSION  
RELIABILITY COUNCIL OF TEXAS § OF TEXAS

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CLERK

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.'S**  
**NOTICE OF PROTOCOL VIOLATION**

COMES NOW, Electric Reliability Council of Texas, Inc. (ERCOT) and files this Notice of Protocol Violation (Notice) of ERCOT Protocol Section 2.1, Definitions, related to the definition of "Credible Single Contingency."

Specifically, the definition of "Credible Single Contingency" states:

**Credible Single Contingency**

- (1) A single facility, comprised of transmission line, auto transformer, or other associated pieces of equipment. This includes multiple equipment Outaged or interrupted during a single fault (single fault multiple element).
- (2) The Forced Outage of a double-circuit transmission line in excess of 0.5 miles in length will always be considered a Credible Single Contingency for all security constrained unit commitment and energy deployment decisions.
- (3) Any Generation Resource:
  - (a) A combined-cycle facility shall be considered a single Generation Resource; or
  - (b) Each unit of a combined-cycle facility will be considered a single Generation Resource if the combustion turbine and the steam turbine can operate separately, as stated in the Resource Registration information on the Market Information System (MIS) Public Area.
- (4) With any single Generation Resource unavailable, and with any other generation preemptively re-Dispatched, the contingency loss of a single facility, comprised of transmission line, auto transformer, or other associated pieces of equipment (either without a fault or subsequent to a normally-cleared non-three-phase fault) with all other facilities normal should not cause the following:
  - (a) Cascading or uncontrolled Outages;

- (b) Instability of Generation Resources at multiple plant locations; or
- (c) Interruption of service to firm demand or generation other than that isolated by the Transmission Facility, following the execution of all automatic operating actions such as relaying and Special Protection Systems (SPSs).

Furthermore, the loss should result in no damage to or failure of equipment and, following the execution of specific non-automatic predefined operator-directed actions (i.e., RAPs) such as generation schedule changes or curtailment of interruptible Load, should not result in applicable voltage or thermal Ratings being exceeded.

- (5) For transmission planning purposes, contingencies are defined in the Planning Guide.

In particular, this Notice pertains to item (4) of the definition, which requires ERCOT to consider “G-1 + N-1” contingent events in Real-Time as well as other operational assessments, including Outage coordination. In practice, ERCOT does not consider such events in Real-Time operations. Rather, these contingent events have only been considered applicable in the Planning Horizon. The definition of Credible Single Contingency was incorporated into the Protocols as a result of Nodal Protocol Revision Request (NPRR) 540, Clarification of Credible Single Contingency. As explained below, ERCOT believes the inclusion of item (4) in this definition was inadvertent.

On April 26, 2013, the ERCOT Operations Working Group (OWG) submitted NPRR540. After several interested parties submitted comments and discussion at several stakeholder meetings, on July 18, 2013, the Protocol Revision Subcommittee (PRS) voted to recommend approval of a version of NPRR540 that included the item (4) language in the definition of Credible Single Contingency described above. As required by Protocol Section 21.4.7, Protocol Revision Subcommittee Review of Impact Analysis, NPRR540 was scheduled to return to the next PRS meeting for consideration of the July 18, 2013 PRS Report and Impact Analysis.

After identifying the concern regarding the inclusion of item (4) in the definition of Credible Single Contingency, on August 9, 2013, ERCOT submitted comments on NPRR540 explaining that “G-1 + N-1” contingent events have only been considered applicable in the Planning Horizon, and since considerations for Credible Single Contingencies are contained in the ERCOT Planning Guide, this language should be removed from the Protocols. On August 12, 2013, ERCOT submitted additional comments on NPRR540 to note that if the definition of Credible Single Contingency were to include this language, there could be impacts to ERCOT Energy and Market Management Systems.

Following these comments, on August 22, 2013, PRS tabled NPRR540 to allow time for discussion of NPRR540 and several related Revision Requests at a workshop. On September 9, 2013, the workshop was held. Following discussion of NPRR540, the workshop participants were in consensus to revise the definition of Credible Single Contingency to remove item (4) and submitted the September 9, 2013 Constraint Management Plan Workshop comments reflecting this recommendation.

However, at the ensuing PRS meeting on October 17, 2013, PRS recommended to endorse the earlier version of NPRR540 contained in the July 18, 2013 PRS Report. This version, which did not include the revisions contained in the September 9, 2013 Constraint Management Plan Workshop comments, was subsequently approved by the ERCOT Board on December 10, 2013, upon recommendation by the Technical Advisory Committee (TAC).

By reaching back to the July 18, 2013 PRS Report, the critical revisions to the definition of Credible Single Contingency were not included in NPRR540 as approved. ERCOT believes it was not the intent of PRS on October 17, 2013 to omit these edits, and therefore was not the

intent of the subsequent voting bodies (TAC and ERCOT Board) to include item (4) in the definition of Credible Single Contingency.

As the definition of Credible Single Contingency is currently stated in the Protocols, it appears that ERCOT is out of compliance with the item (4) requirement, because ERCOT does not consider "G-1 + N-1" contingent events in Real-Time operations. To align the definition of Credible Single Contingency with actual Real-Time operations as soon as practicable, on June 17, 2014, ERCOT submitted new NPRR631, Corrections to Definition of Credible Single Contingency, which would remove item (4) from the definition. ERCOT has requested that PRS grant NPRR631 Urgent status. If Urgent status is granted, ERCOT expects that the NPRR will be scheduled for consideration by the ERCOT Board at its August 12, 2014 meeting. With the passage of the NPRR, ERCOT will be in compliance with the definition of Credible Single Contingency contained in Protocol Section 2.1.

As always, ERCOT would be pleased to discuss this matter more fully at the Commission's request.

Respectfully submitted,

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