



ERCOT Authority to Commit Switchable Generation Resources During Emergency Conditions

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Issue

When ERCOT experiences or anticipates an Emergency Condition, may it direct a Switchable Generation Resource (SWGR) operating in a neighboring region to interconnect with the ERCOT System if the system operator in the other region has released the SWGR to ERCOT's control?

Context

- Under normal operations, a SWGR operator may participate in the market of its choice, subject only to applicable market manipulation restrictions. Pricing differentials can generally be expected to incentivize SWGRs to behave in a manner that serves the greater reliability need.
- However, market mechanisms may not always be sufficient to incentivize switching behavior consistent with reliability (e.g., voltage deficiencies, incentives under private contracts). In these cases, ERCOT may need to direct the SWGR to connect to the ERCOT System to meet reliability needs.
- Coordination agreements between ERCOT and its neighboring system operators ensure these reliability-based switches are facilitated as reliably and expeditiously as possible.

Legal Basis for Reliability-Based Switch Directives

1. Because an owner of a SWGR must be registered as a power generation company under PURA and a Resource Entity under ERCOT Protocols, it is bound to follow all ERCOT rules.

- Any person who generates electricity must register with the Public Utility Commission of Texas as a power generation company. Tex. Util. Code § 39.351(a).
- Power generation companies must observe all operating and reliability “policies, rules, guidelines, and procedures established by the independent system operator in ERCOT.” Tex. Util. Code § 39.151(j); see also PUC Substantive Rule 25.503(f)(2).
- An entity that owns or controls a Generation Resource must register with ERCOT as a Resource Entity and execute the Standard Form Market Participant Agreement. ERCOT Protocols § 16.5(1). The Qualified Scheduling Entity (QSE) for the Resource Entity must also be registered with ERCOT and sign the Standard Form Market Participant Agreement. ERCOT Protocols §§ 16.2.1(1)(a), (b).
- The Standard Form Market Participant Agreement obligates the Resource Entity and its QSE to “comply with, and be bound by, all ERCOT Protocols.” ERCOT Protocols § 22A at § 5.A.

Legal Basis for Reliability-Based Switch Directives (cont'd)

2. ERCOT rules and NERC standards authorize ERCOT to issue Reliability Unit Commitment (RUC) instructions and other emergency directives and require Generation Resource operators to comply with these instructions. No exception is made for SWGRs.

- ERCOT may issue RUC instructions to Generation Resources. ERCOT Protocols § 5.5.2(1).
- ERCOT is authorized to “[p]erform . . . actions required to prevent an imminent Emergency Condition or to restore the ERCOT Transmission Grid to a secure state in the event of an ERCOT Transmission Grid Emergency Condition.” ERCOT Protocols § 6.5.1.1(1)(e).
- ERCOT may “tak[e] any action to preserve the integrity of the ERCOT System.” ERCOT Protocols § 6.5.9.1(2).
- “[E]ach QSE shall comply fully and promptly with a Dispatch Instruction issued to it, unless ... such compliance would create an undue threat to safety, undue risk of bodily harm or undue damage to equipment, or the Dispatch Instruction is otherwise not in compliance with these Protocols.” ERCOT Protocols § 6.5.7.9(1).
- NERC Reliability Standard IRO-001-4 requires that ERCOT, as the Reliability Coordinator (RC) for the ERCOT Region, “act to address the reliability of its Reliability Coordinator Area via direct actions or by issuing Operating Instructions,” and requires Generator Operators, including SWGR operators, to comply with those instructions, absent a physical or regulatory impediment.

Legal Basis for Reliability-Based Switch Directives (cont'd)

3. A generator owner's decision to register with and participate in a neighboring system operator's market does not preclude ERCOT from issuing a reliability-based directive to the SWGR operator during an Emergency Condition; it simply requires that ERCOT coordinate such a directive with the neighboring system operator.

- ERCOT is unaware of any legal principle that would justify elevating the SWGR's economic choice over the system operator's reliability mandate, in the rare event these are in conflict.
- Coordination of SWGR switching by RCs in neighboring systems ensures both regions can optimize their respective reliability missions when either of them experiences or anticipates an emergency condition.

4. The fact that a SWGR may not be synchronized with the ERCOT System does not preclude ERCOT's authority to instruct the SWGR operator in an actual or anticipated Emergency Condition.

- Accepting this premise would lead to the conclusion that ERCOT lacks authority to issue RUC instructions to any Off-Line Generation Resource, which would be contrary to the Protocols.
- NERC Reliability Standard EOP-011-1 recognizes that off-line generators can be committed for reliability purposes because it requires a Balancing Authority experiencing an emergency to ensure "all generation capable of being on line in the time frame of an Emergency is on line." NERC Reliability Standard EOP-011-1, Attachment 1-EOP-011, ¶ 2.5.

Legal Basis for Reliability-Based Switch Directives (cont'd)

5. In the absence of any rational policy basis, presuming an exemption of SWGRs from ERCOT's RUC directives could violate ERCOT's duty to ensure non-discriminatory access to the ERCOT System.

- ERCOT is required to “ensure access to the transmission and distribution systems for all buyers and sellers of electricity on nondiscriminatory terms.” Tex. Util. Code § 39.351(a)(1).
- Allowing SWGR operators to effectively exempt themselves from RUC instructions based on an economic decision to switch out of the ERCOT System would give SWGRs rights that other Generation Resources do not enjoy.

Conclusion and Next Steps

Conclusion:

Because SWGR owners and operators are registered as Market Participants in the ERCOT Region, they are subject to ERCOT rules, including rules authorizing ERCOT to issue reliability-based commitment instructions to Generation Resources. ERCOT's exercise of this authority is consistent with PURA, PUC Rules, and NERC Reliability Standards. When ERCOT experiences an Emergency Condition, and the SWGR is not already operating in the ERCOT Region, ERCOT may commit the SWGR to address that condition so long as the neighboring system operator has released the SWGR to ERCOT's control.

Next Steps:

Comments and questions should be directed to Nathan Bigbee at nathan.bigbee@ercot.com and Brandon Gleason at brandon.gleason@ercot.com.

ERCOT will address comments and questions at the August 8, 2018 WMS meeting.

Reference Documents

- Existing ERCOT-Southwest Power Pool, Inc. (SPP) Coordination Agreement:

http://www.ercot.com/content/mktrules/guides/procedures/SPP%20Coordination%20Agreement_022814_doc.doc

- Existing ERCOT-Midcontinent Independent System Operator, Inc. (MISO) Coordination Document:

http://www.ercot.com/content/mktrules/guides/procedures/Tenaska_Frontier_Operating_Guide.doc

- Switchable Generation in ERCOT Whitepaper:

http://www.ercot.com/content/wcm/key_documents_lists/108818/07_Switchable_Generation_Resources_Whitepaper_V1.0.pdf