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| NOGRR Number | [194](http://www.ercot.com/mktrules/issues/nogrr194) | NOGRR Title | Relocate Black Start Training Attendance Requirements to Nodal Operating Guides |
| Date of Decision | | October 8, 2019 | |
| Action | | Approved | |
| Timeline | | Normal | |
| Effective Date | | November 1, 2019 | |
| Priority and Rank Assigned | | Not applicable | |
| Nodal Operating Guide Sections Requiring Revision | | 1.5.2, System Operator Training Requirements  1.5.3, ERCOT Operations Training Seminar  4.6.4, Responsibilities | |
| Related Documents Requiring Revision/Related Revision Requests | | Nodal Protocol Revision Request (NPRR) 961, Related to NOGRR194, Relocate Black Start Training Attendance Requirements to Nodal Operating Guides | |
| Revision Description | | This Nodal Operating Guide Revision Request (NOGRR) clarifies Black Start training attendance requirements originally located in Nodal Protocol Section 3.14.2, Black Start, and relocates them to the Nodal Operating Guides. | |
| Reason for Revision | | Addresses current operational issues.  Meets Strategic goals (tied to the [ERCOT Strategic Plan](http://www.ercot.com/content/news/presentations/2013/ERCOT%20Strat%20Plan%20FINAL%20112213.pdf) or directed by the ERCOT Board).  Market efficiencies or enhancements  Administrative  Regulatory requirements  Other: (explain)  *(please select all that apply)* | |
| Business Case | | This NOGRR consolidates all system operations training requirements into the Nodal Operating Guides and clarifies which Entities are required to participate. | |
| ROS Decision | | On 8/8/19, ROS unanimously voted to recommend approval of NOGRR194 as amended by the 8/7/19 ERCOT comments. All Market Segments were present for the vote.  On 9/5/19, ROS unanimously voted to endorse and forward to TAC the 8/8/19 ROS Report and the Impact Analysis for NOGRR194. All Market Segments were present for the vote. | |
| Summary of ROS Discussion | | On 8/8/19, ERCOT Staff provided an overview of NOGRR194 and highlighted the additional clarifications outlined in the 8/7/19 ERCOT comments, noting that Entities with units that could potentially become Black Start Resources would not be excluded from training.  On 9/5/19, there was no discussion. | |
| TAC Decision | | On 9/25/19, TAC unanimously voted to recommend approval of NOGRR194 as recommended by ROS in the 9/5/19 ROS Report. All Market Segments were present for the vote. | |
| Summary of TAC Discussion | | On 9/25/19, there was no discussion. | |
| ERCOT Opinion | | ERCOT supports approval of NOGRR194. | |
| Board Decision | | On 10/8/19, the ERCOT Board approved NOGRR194 as recommended by TAC in the 9/25/19 TAC Report. | |

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| Market Segment | Not applicable |

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| **Comments Received** | |
| Comment Author | **Comment Summary** |
| ERCOT 080719 | Provided additional clarification regarding Transmission Operator (TO) and Qualified Scheduling Entity (QSE) training attendance requirements |

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| Market Rules Notes |

Please note that administrative corrections have been made to the language below and authored as “ERCOT Market Rules”.

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| Proposed Guide Language Revision |

1.5.2 System Operator Training Requirements

(1) The System Operator Training Program applies to all operators who are responsible for the Day-Ahead and Real-Time operation of the ERCOT Transmission Grid. Transmission Operators (TOs) and Qualified Scheduling Entity (QSE) operators who represent Generation and Load Resources shall participate in 32 hours per year of training and drills on system emergencies. QSE operators who do not represent Generation or Load Resources must participate in at least eight hours per year of training and drills in system emergencies.

(2) For those operators required to obtain 32 hours annually at least eight hours must be from simulations or realistic drills.

(3) Training should use simulations appropriate to each class of operator and all such training shall meet or exceed established NERC Reliability Standards.

(4) Participation in emergency simulations, severe weather drills, ERCOT Black Start training, and portions of the ERCOT Operations Training Seminar that relate to NERC recommended topics may be used to satisfy this requirement.

(5) ERCOT Black Start training attendance is mandatory for all TOs, QSEs identified in a Black Start restoration plan, Resource Entities that represent Black Start Resources, and other Entities who are notified by ERCOT that their participation is required.

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| ***[NOGRR194: Replace paragraph (5) above with the following upon system implementation of NPRR857:]***  (5) ERCOT Black Start training attendance is required for all TOs, Direct Current Tie Operators (DCTOs), QSEs identified in a Black Start restoration plan, Resource Entities that represent Black Start Resources, and other Entities who are notified by ERCOT that their participation is required. |

(6) Attendance at Black Start training is limited to those Entities identified in paragraph (5) above, ERCOT staff, Public Utility Commission of Texas (PUCT), Reliability Monitor, or other Entities deemed by ERCOT to have a legitimate reliability reason to attend.

(7) Task specific training carried out internally within an Entity will be considered in full compliance with this requirement. Training documentation, including curriculum, training methods, and individual training records, shall be immediately available during any audit.

1.5.3 ERCOT Operations Training Seminar

(1) ERCOT will, at a minimum, annually host a training seminar. The purpose of the training seminar is to provide a forum for system wide problems to be effectively addressed, analyze common topics and issues, and participate in formal training sessions. The training seminar should present information to maintain the consistency of operators across all of the ERCOT Region.



(2) The seminar shall include a minimum of one topic on system restoration.

4.6.4 Responsibilities

(1) ERCOT’s responsibilities are as follows:

(a) Shall maintain a Black Start plan in accordance with North American Electric Reliability Corporation (NERC) Reliability Standards and no more than 30 days after revising the Black Start plan, shall notify the TOs of the revised Black Start plan and post the plan with an effective date on the Market Information System (MIS) Certified Area for TOs;

(b) Shall, no more than 30 days after receiving a TO’s new or revised Black Start plan, notify the TO of ERCOT’s approval or disapproval of the TO’s new or revised Black Start plan and post the approved TO’s new or revised Black Start plan with an effective date on the MIS Certified Area to specified Market Participants requested by the TO;

(c) Coordinate and approve Planned Outage schedules for contracted Black Start Resources;

(d) Train TOs, QSEs, and Resource Entities that represent Black Start Resources in the restoration of the ERCOT System. This training will cover the theory of restoration and the processes that will need to be implemented during a Partial Blackout or Blackout;

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| ***[NOGRR194: Replace item (d) above with the following upon system implementation of NPRR857:]***  (d) Train TOs, QSEs, Direct Current Tie Operators (DCTOs), and Resource Entities that represent Black Start Resources in the restoration of the ERCOT System. This training will cover the theory of restoration and the processes that will need to be implemented during a Partial Blackout or Blackout; |

(e) Will review the plans and procedures for consistency and conformance with these Operating Guides and ensure that they are updated at least annually;

(f) ERCOT shall report to the Reliability and Operations Subcommittee (ROS) by April 1 of each year a plan for review and any testing activities of Black Start Resources;

(g) Shall verify that the number, size, and location of Black Start Resources are sufficient to meet the ERCOT Black Start Plan; and

(h) In the event of a Partial Blackout or Blackout of the ERCOT System, ERCOT shall:

(i) Maintain continuous surveillance of the status of the ERCOT System;

(ii) Act as a central information collection and dissemination point for the ERCOT Region;

(iii) Coordinate reconnection of transmission;

(iv) Direct assistance for QSEs who represent Black Start Resources, TOs, Resource Entities, and Market Participants;

(v) Direct the distribution of reserves; and

(vi) Coordinate the return of the ERCOT System to AGC.

(2) TOs’ responsibilities are as follows:

(a) Shall review and submit their Black Start plans to ERCOT via secured webmail or encrypted data transfer:

(i) Annually by November 1 of each year, for the upcoming calendar year. Plans submitted before November 1 will be deemed to have been received on November 1 for ERCOT to initiate the approval process described in paragraph (1)(b) above; and

(ii) When the Black Start plan for the current year has changed.

The TO may request that ERCOT post the TO’s new or revised Black Start plan on the MIS Certified Area for specified Market Participants. The TO will have the responsibility to notify specified Market Participants that the new or revised Black Start plan has been posted on the MIS Certified Area; and

(b) In event of a Partial Blackout or Blackout of the ERCOT System:

(i) Shall communicate with local Black Start Resources and the Black Start Resource’s QSE;

(ii) Coordinate switching to next start Resources and local Load;

(iii) Shall implement its local Black Start plan;

(iv) Shall follow the direction of ERCOT on behalf of represented Transmission Service Providers (TSPs) and Distribution Service Providers (DSPs);

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| ***[NOGRR177: Replace paragraph (iv) above with the following upon system implementation of NPRR857:]***  (iv) Shall follow the direction of ERCOT on behalf of represented Transmission Service Providers (TSPs), DCTOs, and Distribution Service Providers (DSPs); |

(v) Shall act as the regional ERCOT representative in coordinating interconnection of Resources; and

(vi) Shall follow the direction of ERCOT for reconnection of Islands.

(3) QSEs’ representing Black Start Resources responsibilities are as follows:

(a) Verify that associated QSE personnel are proficient in implementation and use of the appropriate procedures for use in the event of a Partial Blackout or Blackout; and

(b) In the event of a Partial Blackout or Blackout of the ERCOT System, QSEs representing Black Start Resources shall:

(i) Take immediate steps to initiate and maintain communications with its Black Start Resources;

(ii) Supply ERCOT and/or the local TO with information on the status of generation, fuel, transmission, and communication facilities;

(iii) Follow the direction of the local TO or ERCOT in regards to output of its Generation Resources; and

(iv) Provide available assistance as directed by ERCOT or the local TO.

(4) Black Start Resources’ responsibilities are as follows:

(a) Verify that associated Resource personnel are proficient in the implementation and use of appropriate individual plant start-up procedures for use in the event of a Partial Blackout or Blackout; and

(b) In the event of a Partial Blackout or Blackout of the ERCOT System, Black Start Resources shall:

(i) Isolate the Black Start Resource from the ERCOT Transmission Grid;

(ii) Establish communications with the local TO who is the primary contact for the Black Start Resource;

(iii) Supply the local TO and QSE with information on the status of generation, fuel, transmission isolation, and communication facilities;

(iv) Follow the appropriate plant start-up procedures and request synchronization and auxiliary Load pickup from the TO; and

(v) Follow the direction of the local TO or ERCOT until such time as normal system operations resume. The Black Start Resource should follow the direction of the QSE instructed by the TO or ERCOT when necessary.

(5) Generation Resources that are not Black Start Resources have the following responsibilities in the event of a Partial Blackout or Blackout of the ERCOT System:

(a) Take immediate steps to initiate and maintain communications with its QSE; and

(b) Follow the direction of the local TO or ERCOT until such time as normal system operations resume. The Generation Resource should follow the direction of the QSE as instructed by the TO or ERCOT when necessary.

(6) Section 8, Attachment A, Detailed Black Start Information, and Section 8, Attachment E, Black Start Plan Template, provide a detailed and specific Black Start information guide. Interested parties should use this information for technical reference material, Black Start testing, development of Black Start plans, and training of personnel.