Project 2009-03 Emergency Operations (EOP-001-2.1b, -002-3.1, and -003-2)

Consideration of Issues and Directives | July 2014

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Issue or Directive	**Source**	**Consideration of Issue or Directive**
P 571 (S- Ref 10066 – EOP-002) "As we stated in the NOPR, neither EOP-002-2 nor any other Reliability Standard addresses the impact of inadequate transmission during generation emergencies. The Commission agrees with MRO that "insufficient transmission capability" could be due to various causes. The ERO should examine whether to clarify this term in the Reliability Standards development process."	FERC Order No. 693	The EOP SDT has included transmission related items to be included in the Transmission Operator's Emergency Operating Plan. These items impact transmission capability and include Requirement R1, Parts 1.2.2-1.2.5: 1.2.2. Cancellation or recall of Transmission and generation outages; 1.2.4. Transmission system reconfiguration; 1.2.5. Redispatch of generation request;
573 (S- Ref 10067 – EOP-003) "The Commission agrees with FirstEnergy that for demand-side resources to qualify as another tool for balancing authorities to use in meeting control performance and disturbance control Reliability Standards, they must meet comparable technical performance requirements as generation resource options. In response to comments from Comverge and APPA, the Commission believes that curtailable loads are adequately addressed in Requirement R6 of	FERC Order No. 693	The EOP SDT removed EOP-001-2.1b, Attachment 1 and incorporated it into this standard under the applicable requirements. The EOP SDT developed individual requirements for the Transmission Operator and the Balancing Authority to develop, maintain and implement Emergency Operating Plan. The requirements incorporate the applicable elements of Attachment 1 for each entity. **R1.** Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Emergency Operating Plan to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan shall include the following, as applicable: *[Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning]* **1.1.** Roles and responsibilities for activating the Operating Plan;

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the Reliability Standard but that demand response is not covered. Demand response covers considerably more resources than interruptible load. Accordingly, the Commission directs the ERO to modify the Reliability Standard to include all technically feasible resource options in the management of emergencies. These options should include generation resources, demand response resources and other technologies that meet comparable technical performance requirements."		**1.2.** Processes to prepare for and mitigate Emergencies including: **1.2.1.** Notification to the Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency; **1.2.2.** Cancellation or recall of Transmission and generation outages; **1.2.3.** Transmission system reconfiguration; **1.2.4.** Redispatch of generation request; **1.2.5.** Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and **1.2.6.** Reliability impacts of extreme weather conditions. **R2.** Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan to mitigate Capacity Emergencies and Energy Emergencies. The Operating Plan shall include the following, as applicable: *[Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning]* **2.1.** Roles and responsibilities for activating the Operating Plan; **2.2.** Processes to prepare for and mitigate Emergencies including: **2.2.1.** Notification to the Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency; **2.2.2.** Requesting an Energy Emergency Alert, per Attachment 1;

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		2.2.3. Managing generating resources in its Balancing Authority Area to address: **2.2.3.1.** capability and availability; **2.2.3.2.** fuel supply and inventory concerns; **2.2.3.3.** fuel switching capabilities; and **2.2.3.4.** environmental constraints. **2.2.4.** Public appeals for voluntary Load reductions; **2.2.5.** Requests to government agencies to implement their programs to achieve necessary energy reductions; **2.2.6.** Reduction of internal utility energy use; **2.2.7.** Use of Interruptible Load, curtailable Load and demand response; **2.2.8.** Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and **2.2.9.** Reliability impacts of extreme weather conditions.
595 (S- Ref 10072 – EOP-003) "The Commission concludes that the Reliability Standard needs to be modified to ensure that adequate load shedding capabilities are provided so that system	FERC Order No. 693	The EOP SDT removed EOP-001-2.1b, Attachment 1 and incorporated it into this standard under the applicable requirements. The EOP SDT developed individual requirements for the Transmission Operator and the Balancing Authority to develop, maintain and implement Emergency Operating Plan. The requirements incorporate the applicable elements of Attachment 1 for each entity.

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operators have an effective operating measure of last resort to contain system emergencies and prevent cascading. The Commission recognizes that the amount of load shedding capability required is dependent on system characteristics and therefore it may not be feasible to have a uniform nationwide load shedding capability. This, however, does not preclude a uniform nationwide criterion on the methodology for establishing load shedding capability that would specify the minimum amount of load shedding capability that should be provided based on system characteristics and conditions and the maximum amount of delay before load shedding can be implemented. The Commission directs the ERO to address the minimum load and maximum time concerns of the Commission through the Reliability Standards development process. We suggest that a review of industry best practices would be useful in developing nationwide critera.		**R1.** Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Emergency Operating Plan to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan shall include the following, as applicable: *[Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning]* **1.1.** Roles and responsibilities for activating the Operating Plan; **1.2.** Processes to prepare for and mitigate Emergencies including: **1.2.1.** Notification to the Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency; **1.2.2.** Cancellation or recall of Transmission and generation outages; **1.2.3.** Transmission system reconfiguration; **1.2.4.** Redispatch of generation request; **1.2.5.** Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and **1.2.6.** Reliability impacts of extreme weather conditions. **R2.** Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan to mitigate Capacity Emergencies and Energy Emergencies. The Operating Plan shall include the following, as applicable: *[Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning]*

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		2.1. Roles and responsibilities for activating the Operating Plan; **2.2.** Processes to prepare for and mitigate Emergencies including: **2.2.1.** Notification to the Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency; **2.2.2.** Requesting an Energy Emergency Alert, per Attachment 1; **2.2.3.** Managing generating resources in its Balancing Authority Area to address: **2.2.3.1.** capability and availability; **2.2.3.2.** fuel supply and inventory concerns; **2.2.3.3.** fuel switching capabilities; and **2.2.3.4.** environmental constraints. **2.2.4.** Public appeals for voluntary Load reductions; **2.2.5.** Requests to government agencies to implement their programs to achieve necessary energy reductions; **2.2.6.** Reduction of internal utility energy use; **2.2.7.** Use of Interruptible Load, curtailable Load and demand response; **2.2.8.** Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and **2.2.9.** Reliability impacts of extreme weather conditions.

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P 597 (S- Ref 10073 – EOP-003) "As suggested by California PUC, periodic drills of simulated load shedding should involve all participants required to ensure successful implementation of load shedding plans. As such, the drills should extend beyond system operators to distribution operators and LSEs. The Reliability Standard should require periodic drills by entities subject to section 215, and require those entities to seek participation by other entities. The drills should test the readiness and functionality of the load shedding plans, including, at times, the actual deployment of personnel. Therefore the Commission disagrees with FirstEnergy that the requirement for periodic drills of simulated load shedding should be incorporated into the new PER-005-0 Reliability Standard that is currently being drafted to address operator training."	FERC Order No. 693	The Transmission Operator participates in Reliability Coordinator restoration drills and they will be able to shed Load with or without the Load-Serving Entity or Distribution Provider. Transmission Operators also participate in annual training required under Reliability Standard PER-005-2. NERC has launched the Risk-Based Registration (RBR) Initiative to ensure that the right entities are subject to the right set of applicable Reliability Standards, using a consistent approach to risk assessment and registration across the ERO. The goal is to develop enhanced registry criteria, including the use of thresholds and specific Reliability Standards applicability, where appropriate, to better align compliance obligations with material risk to Bulk Electric System reliability. The proposed enhancements reduce unnecessary burdens by all involved while preserving Bulk Electric System reliability and avoiding causing or exacerbating instability, uncontrolled separation, or Cascading failures.
P 601 (S- Ref 10074 – EOP-003) "APPA Comments are in Paragraph 598: 'In addition, APPA states that NERC should consider requiring balancing authorities and	FERC Order No. 693	The EOP SDT removed EOP-001-2.1b, Attachment 1 and incorporated it into this standard under the applicable requirements. The EOP SDT developed individual requirements for the Transmission Operator and the Balancing Authority to develop, maintain and implement Emergency Operating Plan. The requirements incorporate the applicable elements of Attachment 1 for each entity.

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transmission operators to expand coordination and planning of their automatic and manual load shedding plans to include their respective Regional Entities, reliability coordinators and generation owners'."		Coordination and planning of automatic and manual Load shedding has been adequately addressed by requiring Transmission Operators and Balancing Authorities to have a Reliability Coordinator-reviewed Emergency Operating Plan. **R1.** Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Emergency Operating Plan to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan shall include the following, as applicable: *[Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning]* **1.1.** Roles and responsibilities for activating the Operating Plan; **1.2.** Processes to prepare for and mitigate Emergencies including: **1.2.1.** Notification to the Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency; **1.2.2.** Cancellation or recall of Transmission and generation outages; **1.2.3.** Transmission system reconfiguration; **1.2.4.** Redispatch of generation request; **1.2.5.** Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and **1.2.6.** Reliability impacts of extreme weather conditions. **R2.** Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan to mitigate Capacity Emergencies and Energy Emergencies. The Operating Plan shall include the following, as

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