

Project 2009-03 - Emergency Operations

Mapping Document

Project Purpose

The Emergency Operations Five-Year Review Team (EOP FYRT) was appointed by the Standards Committee Executive Committee on April 22, 2013. The EOP FYRT has reviewed the following Emergency Operations standards: EOP-001-2.1b, EOP-002-3.1 and EOP-003-2 to decide if revisions are needed in the scope of this project in relation to P81 and FERC directives. This project is a comprehensive review of this set of EOP standards to ensure that the requirements are clear and unambiguous. Many of the requirements in this set of standards were translated from Operating Policies as part of the Version 0 process, and the standards were due for a comprehensive review. Suggestions for improvement, possible consolidation and for requirements to be considered for retirement under Paragraph 81 have been submitted by stakeholders, other drafting teams and FERC staff.

On October 17, 2013 the Standards Committee accepted the recommendations of the EOP FYRT and appointed a drafting team to implement the recommendations and begin formal development. The Standards Committee further authorized the posting of the Standard Authorization Request (SAR) developed by the EOP FYRT.

Project 2009-03 – Emergency Operations (EOP-011-1) is being coordinated with Project 2008-02 – Undervoltage Load Shedding, which proposes to retire EOP-003-2 Requirements R2, R4, and R7 since these requirements are proposed to be covered by PRC-010-1, Requirement R1; this translation is illustrated in this document and will also be referenced in Project 2008-02's [mapping document](#). The project schedules and implementation plans for these two projects are being closely coordinated to ensure that no gaps or duplication will result from the products developed by the two drafting teams.

Standard: EOP-001-2.1b, Emergency Operations Planning		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>R1. Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning] 2.1. Roles and responsibilities for activating the Operating Plan(s); 2.2. Processes to prepare for and mitigate Emergencies including: 2.2.1. Notification to its 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;</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <ul style="list-style-type: none"> 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. <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		2.2.9. Reliability impacts of extreme weather conditions.
<p>R2. Each Transmission Operator and Balancing Authority shall:</p> <p>R2.1. Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.</p> <p>R2.2. Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.</p> <p>R2.3. Develop, maintain, and implement a set of plans for load shedding</p>	Translated to EOP-011-1, Emergency Operations.	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>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; and</p> <p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning] 2.1. Roles and responsibilities for activating the Operating Plan(s);</p>

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Standard: EOP-001-2.1b, Emergency Operations Planning		
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		<p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>
<p>R3. Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:</p> <p>R3.1. Communications protocols to be used during emergencies.</p>	<p>Translated to EOP-011-1, Emergency Operations; Retired R3.1 under Criteria A and B7 of Paragraph 81 guidelines; Retired</p>	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time</p>

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<p>R3.2. A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.</p> <p>R3.3. The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.</p> <p>R3.4. Staffing levels for the emergency.</p>	<p>R3.4 under Criteria A and B1 of Paragraph 81 guidelines.</p>	<p>Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p> <p>1.2.4. Redispatch of generation request;</p> <p>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</p> <p>1.2.6. Reliability impacts of extreme weather conditions; and</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
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		<p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p>

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		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.

Standard: EOP-001-2.1b, Emergency Operations Planning		
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		<p>Retirements:</p> <p>Requirement R3.1</p> <ul style="list-style-type: none"> • Meets Criterion B7 and Criterion A of Paragraph 81; • Covered by EOP-001-2.1b Requirement R4 in Attachment 1 (proposed Requirements R1 and R2 in EOP-011-1); and • COM-001 and COM-002 are descriptive in the identification of protocols to use and, thus, adequately cover the generic reference. <p>Requirement R3.2</p> <ul style="list-style-type: none"> • Meets Criterion B7 and Criterion A of Paragraph 81; and • Load reduction within timelines is covered by BAL-002 Requirement R2. <p>Requirement R3.4</p> <ul style="list-style-type: none"> • Meets Criterion B1 of Paragraph 81; and • Staffing levels are administrative in nature.

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<p>R4. Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001 when developing an emergency plan.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p> <p>1.2.4. Redispatch of generation request;</p> <p>1.2.5. Provisions for operator-controlled manual Load shedding that minimizes the overlap with</p>

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		<p>automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and</p> <p>1.2.6. Reliability impacts of extreme weather conditions; and</p> <p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions</p>

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		<p>when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2 Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>2.2.8. Provisions for operator-controlled manual Load shedding that minimizes the overlap</p>

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		<p>with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>
<p>R5. The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing Authorities.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p>

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		<p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p> <p>1.2.4. Redispatch of generation request;</p> <p>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</p> <p>1.2.6. Reliability impacts of extreme weather conditions; and</p> <p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area.</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
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		<p>The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p>

Standard: EOP-001-2.1b, Emergency Operations Planning		
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		<p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p> <p>R4. Each Transmission Operator and Balancing Authority shall address any reliability risks identified by its</p>

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		<p>Reliability Coordinator pursuant to Requirement R3 and resubmit its Operating Plan(s) to the Reliability Coordinator within a time period specified by its Reliability Coordinator. [Violation Risk Factor: High] [Time Horizon: Operation Planning]</p> <p><u>In this industry it is widely understood that “maintain,” is not simply to establish the plan. The intent of the EOP SDT is for BAs and TOPs to keep its Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies contemporary and for the Emergency Plan to stay contemporary.</u></p>
<p>R6. The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:</p> <p>R6.1. The Transmission Operator and Balancing Authority shall establish and maintain</p>	Retired under Criteria B6 and B7 of P81 guidelines.	<p>Retirements</p> <p>Requirement R6.1</p> <ul style="list-style-type: none"> Meets Criterion B7 of Paragraph 81; and Redundant with COM-001. <p>Requirement R6.2</p> <ul style="list-style-type: none"> Meets Criterion B6 of Paragraph 81;

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<p>reliable communications between interconnected systems.</p> <p>R6.2. The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.</p> <p>R6.3. The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)</p> <p>R6.4. The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.</p>		<ul style="list-style-type: none"> • Speaks to an action to be taken during capacity issues that is not feasible in accomplishing; and • Transaction arrangements are a commercial practice. <p>Requirement R6.3</p> <ul style="list-style-type: none"> • Meets Criterion B7 of Paragraph 81; and • Covered by EOP-001-2.1b Requirement R4 in Attachment 1 (proposed Requirements R1 and R2 in EOP-011-1). <p>Requirement R6.4</p> <ul style="list-style-type: none"> • Meets Criterion A of Paragraph 81; and • Does not provide benefit to the reliability of the BES.

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Standard: EOP-002-3.1, Capacity and Energy Emergencies		
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<p>R1. Each Balancing Authority and Reliability Coordinator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its respective area and shall exercise specific authority to alleviate capacity and energy emergencies.</p>	<p>Retired under Criteria A and B7 of P81 guidelines.</p>	<p>Retired – redundant with PER-001, R1 with respect to the Balancing Authority and IRO-001-1.1, Requirement R3 for the Reliability Coordinator.</p>
<p>R2. Each Balancing Authority shall, when required and as appropriate, take one or more actions as described in its capacity and energy emergency plan to reduce risks to the interconnected system.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning] 2.1. Roles and responsibilities for activating the Operating Plan(s); 2.2. Processes to prepare for and mitigate Emergencies including:</p>

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		<p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p>

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		<p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>
<p>R3. A Balancing Authority that is experiencing an operating capacity or energy emergency shall communicate its current and future system conditions to its Reliability Coordinator and neighboring Balancing Authorities.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p>

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		<p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p>

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		<p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p> <p>R5. Each Reliability Coordinator that receives an Emergency notification from a Transmission Operator or Balancing Authority within its Reliability Coordinator Area shall notify, within 30 minutes from the time of receiving notification, other Balancing Authorities and Transmission Operators in its Reliability Coordinator Area, and neighboring Reliability Coordinators.</p>

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
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		<p><i>[Violation Risk Factor: High] [Time Horizon: Real-Time Operations]</i></p> <p><u>To have a TOP or BA contact other TOPs and BAs takes them away from the Emergency at hand, plus they do not have a wide-area view. The RC can give an indication of impact and make high-level determinations. The RC has the wide-area overview and can quickly determine impacts of neighboring TOPs, BAs and RCs. The RC is to make contact within 30 minutes of notification. From there, IRO-005, IRO-006 and IRO-007 would address the specific actions to be taken.</u></p>
<p>R4. A Balancing Authority anticipating an operating capacity or energy emergency shall perform all actions necessary including bringing on all available generation, postponing equipment maintenance, scheduling interchange purchases in advance, and being prepared to reduce firm load.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon:</p>

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		<p>Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p>

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Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>
<p>R5. A deficient Balancing Authority shall only use the assistance provided by the Interconnection’s frequency bias for the time needed to implement corrective actions. The Balancing Authority shall not unilaterally</p>	<p>EOP-002-3.1, R5 maps to BAL-003-1, R1, R2, R3, and R4.</p>	<p>BAL-003-1, R1 R1. Each Frequency Response Sharing Group (FRSG) or Balancing Authority that is not a member of a FRSG shall achieve an annual Frequency Response Measure (FRM)</p>

Project 2008-12 - Coordinate Interchange Standards

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
adjust generation in an attempt to return interconnection frequency to normal beyond that supplied through frequency bias action and Interchange Schedule changes. Such unilateral adjustment may overload transmission facilities.		<p>(as calculated and reported in accordance with Attachment A) that is equal to or more negative than its Frequency Response Obligation (FRO) to ensure that sufficient Frequency Response is provided by each FRSG or BA that is not a member of a FRSG to maintain Interconnection Frequency Response equal to or more negative than the Interconnection Frequency Response Obligation.</p> <p>BAL-003-1, R2 R2. Each Balancing Authority that is a member of a multiple Balancing Authority Interconnection and is not receiving Overlap Regulation Service and uses a fixed Frequency Bias Setting shall implement the Frequency Bias Setting determined in accordance with Attachment A, as validated by the ERO, into its Area Control Error (ACE) calculation during the implementation period specified by the ERO and shall use this Frequency Bias Setting until directed to change by the ERO.</p> <p>BAL-003-1, R3</p>

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>R3. Each Balancing Authority that is a member of a multiple Balancing Authority Interconnection and is not receiving Overlap Regulation Service and is utilizing a variable Frequency Bias Setting shall maintain a Frequency Bias Setting that is: (1.1) Less than zero at all times, and (1.2) Equal to or more negative than its Frequency Response Obligation when Frequency varies from 60 [Hertz] Hz by more than +/- 0.036 Hz.</p> <p>BAL-003-1, R4</p> <p>R4. Each Balancing Authority that is performing Overlap Regulation Service shall modify its Frequency Bias Setting in its ACE calculation, in order to represent the Frequency Bias Setting for the combined Balancing Authority area, to be equivalent to either:</p> <ul style="list-style-type: none"> • the sum of the Frequency Bias Settings as shown on FRS Form 1 and FRS Form 2 for the participating Balancing Authorities as validated by the ERO, or • the Frequency Bias Setting shown on FRS Form 1 and FRS Form 2 for the entirety of the participating Balancing Authorities' areas.

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>R6. If the Balancing Authority cannot comply with the Control Performance and Disturbance Control Standards, then it shall immediately implement remedies to do so. These remedies include, but are not limited to:</p> <ul style="list-style-type: none"> R6.1. Loading all available generating capacity. R6.2. Deploying all available operating reserve. R6.3. Interrupting interruptible load and exports. R6.4. Requesting emergency assistance from other Balancing Authorities. R6.5. Declaring an Energy Emergency through its Reliability Coordinator; and R6.6. Reducing load, through procedures such as public appeals, voltage reductions, curtailing interruptible loads and firm loads. 	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <ul style="list-style-type: none"> 2.1. Roles and responsibilities for activating the Operating Plan(s); 2.2. Processes to prepare for and mitigate Emergencies including: <ul style="list-style-type: none"> 2.2.1. Notification to its 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:

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		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.

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>R7. Once the Balancing Authority has exhausted the steps listed in Requirement 6, or if these steps cannot be completed in sufficient time to resolve the emergency condition, the Balancing Authority shall:</p> <p>R7.1. Manually shed firm load without delay to return its ACE to zero; and</p> <p>R7.2. Request the Reliability Coordinator to declare an Energy Emergency Alert in accordance with Attachment 1-EOP-002 “Energy Emergency Alerts.”</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p>

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.2 Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p>

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		2.2.9. timeframe adequate for mitigating the Emergency; and Reliability impacts of extreme weather conditions.
R8. A Reliability Coordinator that has any Balancing Authority within its Reliability Coordinator area experiencing a potential or actual Energy Emergency shall initiate an Energy Emergency Alert as detailed in Attachment 1-EOP-002 "Energy Emergency Alerts." The Reliability Coordinator shall act to mitigate the emergency condition, including a request for emergency assistance if required.	Translated to EOP-011-1, Emergency Operations.	EOP-011-1, R6 R6. Each Reliability Coordinator that has a Balancing Authority experiencing a potential or actual Energy Emergency within its Reliability Coordinator Area shall declare an Energy Emergency Alert, as detailed in Attachment 1. [Violation Risk Factor: High] [Time Horizon: Real-Time Operations]
R9. When a Transmission Service Provider expects to elevate the transmission service priority of an Interchange Transaction from Priority 6 (Network Integration Transmission Service from Non-designated Resources) to Priority 7 (Network Integration	Retired per P81 – this is addressed in NAESB tagging specification.	LSEs have no Real-time reliability functionality with respect to EEs. Requirement R9 was in place to allow for a Transmission Service Provider to change the priority of a service request, informing the Reliability Coordinator so that the

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>transmission Service from designated Network Resources) as permitted in its transmission tariff:</p> <p>R9.1. The deficient Load-Serving Entity shall request its Reliability Coordinator to initiate an Energy Emergency Alert in accordance with Attachment 1-EOP-002 “Energy Emergency Alerts.”</p> <p>R9.2. The Reliability Coordinator shall submit the report to NERC for posting on the NERC Website, noting the expected total MW that may have its transmission service priority changed.</p> <p>R9.3. The Reliability Coordinator shall use EEA 1 to forecast the change of the priority of transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.</p> <p>R9.4. The Reliability Coordinator shall use EEA 2 to announce the change of the priority of transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.</p>		<p>service would not be curtailed by a TLR; and since the Tagging Specs did not allow profiles to be changed, this was the only method to accomplish it. Under NAESB WEQ Etag Spec v1811 R3.6.1.3, this has been modified and now the TSP has the ability to change the Transmission priority which, in turn, is reflected in the IDC. This technology change allows for the deletion of Requirement R9 in its entirety. Requirement R9 meets with Criterion A of Paragraph 81 and should be retired.</p>

Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>Attachment 1 2.6.4 Operating Reserves. Operating reserves are being utilized such that the Energy Deficient Entity is carrying reserves below the required minimum or has initiated emergency assistance through its operating reserve sharing program.</p>	<p>Translated to EOP-011-1, Attachment 1.</p>	<p>Attachment 1 EEA 2 – Load management procedures in effect</p> <ul style="list-style-type: none"> • An energy deficient BA is still able to maintain minimum Contingency Reserve requirements. <p><u>Using Contingency Reserves (which is a subset of Operating Reserves) puts a BA closer to the operating edge. The drafting team felt that the point where a BA can no longer maintain this important Contingency Reserves margin is a most serious condition and puts the BA into a position where they are very close to shedding Load (“imminent or in progress”). The drafting team felt that this warrants categorization at the highest level of EEA.</u></p> <ul style="list-style-type: none"> • <u>The previous language in EOP-002-3.1, EEA 2 used “Operating Reserve,” which is an all-inclusive term, including all reserves (including Contingency Reserves). Many Operating Reserves are used continuously, every hour of every day. Total Operating Reserve requirements are kind of nebulous since they do not have a specific hard minimum value. Contingency Reserves are used far less frequently. Because of the confusion over this issue,</u>

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Standard: EOP-002-3.1, Capacity and Energy Emergencies		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<u>evidenced by the comments received, the drafting team thought that using minimum Contingency Reserve in the language would eliminate some of the confusion. This is a different approach but the drafting team believes this is a good approach and was supported by several commenters.</u>

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Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>R1. After taking all other remedial steps, a Transmission Operator or Balancing Authority operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the Interconnection.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p>	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p> <p>1.2.4. Redispatch of generation request;</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>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</p> <p>1.2.6. Reliability impacts of extreme weather conditions; and</p> <p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>
<p>R2. Each Transmission Operator shall establish plans for automatic load shedding for undervoltage conditions if the Transmission Operator or its associated Transmission Planner(s) or Planning Coordinator(s) determine that an under-voltage load shedding scheme is required.</p>	<p>EOP-003-2, R2 maps to PRC-010-1, R1.</p> <p>Applicability is changed to the PC or TP because the PC or TP is</p>	<p>Proposed Language in PRC-010-1:</p> <p>R1. Each Planning Coordinator or Transmission Planner that is developing a UVLS Program shall evaluate its effectiveness and subsequently provide the UVLS Program’s specifications and implementation schedule to the UVLS entities responsible for implementing the UVLS program. The evaluation shall include, but is not limited to, studies and analyses that show: <i>[Violation Risk Factor: High] [Time Horizon: Long-term]</i></p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
	responsible for the program design.	<p><i>Planning]</i></p> <p>1.1. The implementation of the UVLS Program resolves the identified undervoltage issues that led to its development and design.</p> <p>1.2. The UVLS Program is integrated through coordination with generator voltage ride-through capabilities and other protection and control systems, including, but not limited to, transmission line protection, autoreclosing, Remedial Action Schemes, and other undervoltage-based load shedding programs.</p> <p>These tasks need to be performed in a planning horizon in order to be implemented before any operational issues arise. EOP-011-1 relates to Real-time operations and the operations planning time horizon.</p>
R3. Each Transmission Operator and Balancing Authority shall coordinate load shedding plans, excluding automatic under-frequency load shedding	Translated to EOP-011-1, Emergency Operations.	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
plans, among other interconnected Transmission Operators and Balancing Authorities.		<p>reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <ol style="list-style-type: none"> 1.1. Roles and responsibilities for activating the Operating Plan(s); 1.2. Processes to prepare for and mitigate Emergencies including: <ol style="list-style-type: none"> 1.2.1. Notification to its 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

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>1.2.6. Reliability impacts of extreme weather conditions; and</p> <p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.2 Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <ul style="list-style-type: none"> 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. <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>timeframe adequate for mitigating the Emergency; and</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>
<p>R4. A Transmission Operator shall consider one or more of these factors in designing an automatic under voltage load shedding scheme: voltage level, rate of voltage decay, or power flow levels.</p>	<p>EOP-003-2, R4 maps to PRC-010-1, R1.</p> <p>Applicability is changed to the PC or TP because the PC or TP is responsible for the program design.</p> <p>EOP-003-2, R4 is inherently embedded in PRC-010-1, R1, Part 1.1. The specific items</p>	<p>Proposed Language in PRC-010-1:</p> <p>R1. Each Planning Coordinator or Transmission Planner that is developing a UVLS Program shall evaluate its effectiveness and subsequently provide the UVLS Program’s specifications and implementation schedule to the UVLS entities responsible for implementing the UVLS program. The evaluation shall include, but is not limited to, studies and analyses that show: <i>[Violation Risk Factor: High] [Time Horizon: Long-term Planning]</i></p> <p>1.1. The implementation of the UVLS Program resolves the identified undervoltage issues that led to its development and design.</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
	noted are described in PRC-010-1's Guidelines and Technical Basis.	<p>1.2. The UVLS Program is integrated through coordination with generator voltage ride-through capabilities and other protection and control systems, including, but not limited to, transmission line protection, autoreclosing, Remedial Action Schemes, and other undervoltage-based load shedding programs.</p> <p>These tasks need to be performed in a planning horizon in order to be implemented before any operational issues arise. EOP-011-1 relates to Real-time operations and the operations planning time horizon.</p>
<p>R5. A Transmission Operator or Balancing Authority shall implement load shedding, excluding automatic under-frequency load shedding, in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.</p>	Translated to EOP-011-1, Emergency Operations.	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p> <p>1.2.4. Redispatch of generation request;</p> <p>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</p> <p>1.2.6. Reliability impacts of extreme weather conditions; and</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		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.

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
<p>R6. After a Transmission Operator or Balancing Authority Area separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator or Balancing Authority shall shed additional load.</p>	<p>Translated to EOP-011-1, Emergency Operations.</p> <p><u>Rehearing of FERC Order No. 763, Paragraph 11: "Accordingly, we grant clarification that Order No. 763 did not preclude some degree of overlap between automatic and manual load shedding programs, provided there is sufficient non-overlapping load</u></p>	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p> <p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p>

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Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
	<p><i><u>available for manual shedding to achieve the reliability objective of EOP-003-2.”</u></i></p>	<p>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; and</p> <p>EOP-011-1, R2 R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning] 2.1. Roles and responsibilities for activating the Operating Plan(s);</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p> <p>2.2.6. Reduction of internal utility energy use;</p>

Standard: EOP-003-2, Load Shedding Plans		
Requirement in Approved Standard	Translation to New Standard or Other Action	Comments
		<p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p> <p><u>Rehearing of FERC Order No. 763, Paragraph 11:</u> <i>"Accordingly, we grant clarification that Order No. 763 did not preclude some degree of overlap between automatic and manual load shedding programs, provided there is sufficient non-overlapping load available for manual shedding to achieve the reliability objective of EOP-003-2."</i></p>
R7. The Transmission Operator shall coordinate automatic undervoltage load shedding throughout their		Proposed Language in PRC-010-1:

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<p>areas with tripping of shunt capacitors, and other automatic actions that will occur under abnormal voltage, or power flow conditions.</p>	<p>EOP-003-2, R7 maps to PRC-010-1, R1.</p> <p>Applicability is changed to the PC or TP because the PC or TP is responsible for the program design.</p> <p>EOP-003-2, R7 is inherently embedded in PRC-010-1, R1, Part 1.2. The specific items noted are described in PRC-010-1's Guidelines and Technical Basis.</p>	<p>R1. Each Planning Coordinator or Transmission Planner that is developing a UVLS Program shall evaluate its effectiveness and subsequently provide the UVLS Program's specifications and implementation schedule to the UVLS entities responsible for implementing the UVLS program. The evaluation shall include, but is not limited to, studies and analyses that show: <i>[Violation Risk Factor: High] [Time Horizon: Long-term Planning]</i></p> <p>1.1. The implementation of the UVLS Program resolves the identified undervoltage issues that led to its development and design.</p> <p>1.2. The UVLS Program is integrated through coordination with generator voltage ride-through capabilities and other protection and control systems, including, but not limited to, transmission line protection, autoreclosing, Remedial Action Schemes, and other undervoltage-based load shedding programs.</p>

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		These tasks need to be performed in a planning horizon in order to be implemented before any operational issues arise. EOP-011-1 relates to Real-time operations and the operations planning time horizon.
R8. Each Transmission Operator or Balancing Authority shall have plans for operator controlled manual load shedding to respond to real-time emergencies. The Transmission Operator or Balancing Authority shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.	Translated to EOP-011-1, Emergency Operations.	<p>EOP-011-1, R1</p> <p>R1. Each Transmission Operator shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p> <p>1.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>1.2. Processes to prepare for and mitigate Emergencies including:</p> <p>1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;</p>

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		<p>1.2.2. Cancellation or recall of Transmission and generation outages;</p> <p>1.2.3. Transmission system reconfiguration;</p> <p>1.2.4. Redispatch of generation request;</p> <p>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</p> <p>1.2.6. Reliability impacts of extreme weather conditions; and</p> <p>EOP-011-1, R2</p> <p>R2. Each Balancing Authority shall develop, maintain, and implement a Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable: [Violation Risk Factor: High] [Time Horizon: Real-Time Operations, Operations Planning, Long-term Planning]</p>

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		<p>2.1. Roles and responsibilities for activating the Operating Plan(s);</p> <p>2.2. Processes to prepare for and mitigate Emergencies including:</p> <p>2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;</p> <p>2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;</p> <p>2.2.3. Managing generating resources in its Balancing Authority Area to address:</p> <p>2.2.3.1. capability and availability;</p> <p>2.2.3.2. fuel supply and inventory concerns;</p> <p>2.2.3.3. fuel switching capabilities; and</p> <p>2.2.3.4. environmental constraints.</p> <p>2.2.4. Public appeals for voluntary Load reductions;</p> <p>2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;</p>

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		<p>2.2.6. Reduction of internal utility energy use;</p> <p>2.2.7. Use of Interruptible Load, curtailable Load and demand response;</p> <p>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</p> <p>2.2.9. Reliability impacts of extreme weather conditions.</p>