

**Stakeholder Comparison Comment Rationale Matrix**

**2011-09-13**

**AESO AUTHORITATIVE DOCUMENT PROCESS**

**Alberta Reliability Standard – EOP-001-AB-2 Emergency Operations Planning**

|  |   |
|--|---|
| <p>Date of Request for Comment [yyyy/mm/dd]: <u>2011-09-08</u></p> <p>Period of Consultation [yyyy/mm/dd]: <u>2011-09-08</u> through <u>2011-10-07</u></p> <p>Comments From: <u>Nexen Inc.</u></p> <p>Date [yyyy/mm/dd]: <u>2011/10/07</u></p> | <p>Contact: <u>Ed Hucman</u></p> <p>Phone: <u>403.699.5413</u></p> <p>E-mail: <u><a href="mailto:Edward_hucman@nexeninc.com">Edward_hucman@nexeninc.com</a></u></p> |
|--|---|

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here)   | AESO Replies |
|---|---|---|--|---|--------------|
| <p><b>Purpose</b><br/>Each Transmission Operator and Balancing Authority needs to develop, maintain, and implement a set of plans to mitigate operating emergencies. These plans need to be coordinated with other Transmission Operators and Balancing Authorities, and the Reliability Coordinator.</p> | <p><b>Purpose</b><br/>The purpose of this <b>reliability standard</b> is to define requirements for development, maintenance, implementation and coordination of plans to mitigate operating emergencies.</p> | <p><b>Purpose</b><br/>The purpose of this <b>reliability standard</b> is to define requirements for the development, maintenance, implementation and coordination of plans to mitigate operating emergencies.</p>   |  |   |              |
| <p><b>Applicability</b><br/>4.1. Balancing Authorities.<br/>4.2. Transmission Operators.</p>  | <p><b>Applicability</b><br/>This <b>reliability standard</b> applies to:</p> <ul style="list-style-type: none"> <li>• ISO</li> <li>• TFOs</li> </ul>  | <p><b>Applicability</b><br/>This <b>reliability standard</b> applies to:</p> <p>(a) the <b>operator</b> of a <b>transmission facility</b> that is part of the <b>bulk electric system</b>; and</p> <p>(b) the <b>ISO</b>.</p> <p>This <b>reliability standard</b> does not apply to the <b>operator</b> of a <b>transmission facility</b> whose <b>transmission facility</b> is a radial connection from a <b>generating unit</b> or an <b>aggregated</b></p> | <p>The terms used to describe applicable entities in this reliability standard have been amended from the NERC version in order to correctly identify the applicable entities in Alberta and to align with terms included in the AESO Consolidated Authoritative Documents Glossary.</p> | <p>Nexen is seeking additional clarity and or confirmation from the AESO on:</p> <p>a) how the proposed wording for generators who may own transmission facilities (due to the definition provided in the AESO's glossary and as per the EUA) clearly demonstrates this standards does not apply to them; and</p> |              |

<sup>1</sup> This column presents the version that was previously consulted on. It is for information only.  
Issued for Stakeholder Consultation: 2011-09-13

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2 | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup> | EOP-001-AB-2   | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2 | Stakeholder Comments (Insert comments here)  | AESO Replies |
|----------------|--|--|--|--|--------------|
|                |  | <p><b>generating facility</b> to either the <b>transmission system</b> or to <b>transmission facilities</b> within the city of Medicine Hat.</p> |  | <p>b) how the proposed wording would be applied to Industrial System Designation (ISD) facilities.</p> <p>a) As the AESO can appreciate, generator interconnections can vary significantly between different facilities. Are there any circumstances or interconnection configurations in which the AESO can envision a generator connected via a radial line could still be considered a transmission facility operator and must comply with this reliability standard? If so please explain. Is there an opportunity to modify this section to capture only those entities in which the AESO feels were intended to be compliant with this standard?</p> <p>b) ISD facilities are or can be load and generator facilities. Nexen submits</p> |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2 | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup> | EOP-001-AB-2 | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2 | Stakeholder Comments (Insert comments here)   | AESO Replies |
|----------------|--|--------------|--|---|--------------|
|                |  |              |  | <p>the definition of “<b>bulk electric system</b>” along with the generator disclaimer “does not apply to the <b>operator</b> of a <b>transmission facility</b> whose <b>transmission facility</b> is a radial connection from a <b>generating unit</b>” could create a conflict and confusion when determining applicability for ISD facility. ISD’s may own and or operate facilities &gt;100kV (much like generators) but as they could be a load this standard may apply to them. That being said, as ISD’s are also a generator, this standard may not apply to them. Much like the question posed above, does the AESO envision any circumstances and interconnection configurations in which and ISD would have to comply with this standard? If so is</p> |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here)  | AESO Replies |
|---|---|---|--|--|--------------|
|   |   |   |  | <p>there an opportunity to provide further clarity to this section to simplify an applicability assessment? Is there an opportunity to include some wording that would take into account dual-use / industrial facilities?</p> |              |
| <p><b>Effective Date</b><br/>Twenty-four months after the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements go into effect twenty-four months after Board of Trustees adoption.</p> | <p><b>Effective Date</b><br/>Ten calendar days after the date of approval by the Commission.</p>  | <p><b>Effective Date</b><br/>October 1, 2012</p>  |  |  |              |
| <p><b>R1.</b> Balancing Authorities shall have operating agreements with adjacent Balancing Authorities that shall, at a minimum, contain</p>   | <p><b>R1</b> The <b>ISO</b> must have operating agreements with <b>adjacent balancing authorities</b> that contain provisions for emergency</p> | <p><b>R1</b> The <b>ISO</b> must, as appropriate, have operating agreements with <b>adjacent balancing authorities</b> that contain provisions for <b>emergency assistance</b>.</p> | <p><input type="checkbox"/> New<br/><input checked="" type="checkbox"/> Amended<br/><input type="checkbox"/> Deleted</p> <p><b>Alberta Variance<sup>2</sup>:</b></p> |  |              |

<sup>2</sup> An Alberta variance is a change from the US Reliability Standard that the AESO has determined is material.  
Issued for Stakeholder Consultation: 2011-09-13

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>   | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|--|---|--|---|--------------|
| provisions for emergency assistance, including provisions to obtain emergency assistance from remote Balancing Authorities.   | energy, including provisions to obtain emergency energy from remote balancing authorities.   |   | Removed “including provisions to obtain emergency assistance from remote Balancing Authorities” as stated in NERC EOP-001-2 requirement R1. The AESO does not have the ability to obtain transmission rights from other transmission providers in order to obtain emergency assistance from remote balancing authorities.                          |   |              |
| <p><b>R2.</b> Each Transmission Operator and Balancing Authority shall:</p> <p><b>R2.1.</b> Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.</p> | <p><b>R2</b> The <b>ISO</b> must develop, maintain, and implement a set of plans to mitigate insufficient generating capacity.</p> | <p><b>R2</b> The <b>ISO</b> must develop, maintain and implement a capacity and energy emergency plan to mitigate insufficient generating capacity.</p> | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p>Identified the Alberta reliability entity applicable to this requirement. Specified the type of plan as a “capacity and energy emergency plan” to align with the reference to this type of plan in EOP-002-AB-2.</p> |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2  | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|---|---|---|---|--------------|
| <p><b>R2.2.</b> Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.</p> | <p><b>R3</b> The <b>ISO</b> must develop and maintain a set of plans to meet ISO transmission reliability operating criteria and mitigate operating emergencies on the transmission system.</p> <p><b>R4</b> The <b>ISO</b> must implement a set of plans to meet <b>ISO</b> transmission reliability operating criteria and to mitigate operating emergencies on the transmission system</p> | <p><b>R3</b> Each of the <b>ISO</b> and the <b>operator</b> of a <b>transmission facility</b> must develop, maintain and implement plans to mitigate operating emergencies on the <b>transmission system</b>.</p> | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p>Identified Alberta reliability entities applicable to this requirement.</p>         |   |              |
| <p><b>R2.3.</b> Develop, maintain, and implement a set of plans for load shedding.</p>  | <p><b>R5</b> The <b>ISO</b> and <b>TFOs</b> must each develop, maintain, and implement a set of plans for <b>load</b> shedding</p>  | <p><b>R4</b> Each of the <b>ISO</b> and the <b>operator</b> of a <b>transmission facility</b> must develop, maintain and implement plans for load shedding.</p>   | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p>Identified Alberta reliability entities applicable to this requirement.</p>         |   |              |
| <p><del><b>R2.4.</b> Develop, maintain, and implement a set of plans for system restoration.</del></p>                            | <p><b>R6</b> The <b>ISO</b> and <b>TFOs</b> must each develop, maintain, and implement a set of plans for system restoration.</p>   |   | <p><input type="checkbox"/> New<br/> <input type="checkbox"/> Amended<br/> <input checked="" type="checkbox"/> Deleted</p> <p>This requirement was in the previous NERC version of this reliability standard,</p> |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2   | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>   | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|--|--|---|--|---|--------------|
|  |  |   | however, NERC has deleted it from NERC EOP-001-2.  |   |              |
| <p><b>R3.</b> 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><b>R3.1.</b> Communications protocols to be used during emergencies</p> <p><b>R3.2.</b> 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><b>R3.3.</b> The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.</p> | <p><b>R7</b> The <b>ISO</b> and <b>TFOs</b> must each include the following in each plan it must develop, maintain and implement as required by this reliability standard.</p> <p><b>R7.1</b> Communication protocols to be used during emergencies.</p> <p><b>R7.2</b> A list of controlling actions to resolve the operating emergency, including a controlling action to reduce <b>load</b> if required, within <b>NERC</b> established timelines.</p> <p><b>R7.3</b> The tasks to be coordinated, as applicable, with and among adjacent <b>TFOs</b>, <b>interconnected transmission operators</b> and <b>adjacent</b></p> | <p><b>R5</b> Each of the <b>ISO</b> and the <b>operator</b> of a <b>transmission facility</b> must include, at a minimum, when developing emergency plans as identified in requirements R2, R3 and R4, the following:</p> <p>(a) communication protocols to be used during operating emergencies;</p> <p>(b) a list of controlling actions to resolve the operating emergency within <b>NERC</b> established timelines, including, where appropriate, a controlling action to reduce load;</p> <p>(c) the tasks to be coordinated with and among any affected <b>operator</b> of a <b>transmission facility</b>, adjacent <b>interconnected transmission operator</b> and</p> | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p>Amended for clarity and consistency.</p> <p>Amended to include that shedding of load is not an appropriate action for all emergencies.</p> |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>   | EOP-001-AB-2   | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|--|--|--|---|--------------|
| <p><b>R3.4.</b> Staffing levels for the emergency.</p>  | <p><b>R7.4</b> A procedure for adjusting staffing levels needed for the operating emergency.</p>                                 | <p>adjacent balancing authority, as appropriate; and</p> <p>(d) a procedure for adjusting staffing levels for the emergency, where appropriate.</p>              | <p>NERC EOP-001-2 requirement R3.4 states emergency plans shall include “staffing levels for the emergency”, however specific staffing levels are difficult to specify since they may vary depending on the operating emergency. Clarified that a procedure for adjusting staffing levels is required.</p> |   |              |
| <p><b>R4.</b> Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.</p> | <p><b>R8</b> The <b>ISO</b> and <b>TFOs</b> must each consider the elements in Attachment 1 when developing emergency plans.</p> | <p><b>R6</b> The <b>ISO</b> must consider the elements in Appendix 1 when developing a capacity and energy emergency plan in accordance with requirement R2.</p> | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p><b>Alberta Variance<sup>3</sup>:</b> NERC EOP-001-2 requirement R4 states applicable elements in Attachment 1-EOP-001-0 are to be included in</p>                            |   |              |

<sup>3</sup> An Alberta variance is a change from the US Reliability Standard that the AESO has determined is material.  
 Issued for Stakeholder Consultation: 2011-09-13

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>   | EOP-001-AB-2   | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|--|--|--|---|--------------|
|   |  |  | emergency plans. However, the items in Appendix 1 only apply to a capacity and energy emergency as stated in Alberta requirement R5.   |   |              |
| <p><b>R5.</b> 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><b>R9</b> The <b>ISO</b> and <b>TFOs</b> must each review and update, as required, each emergency plan within 12 months of the last review.</p> | <p><b>R7</b> The <b>ISO</b> must review its capacity and energy emergency plan, plans to mitigate operating emergencies on the <b>transmission system</b> and plans for load shedding once every calendar year and update as required.</p> | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p>Separated NERC requirement R5 into four requirements (R7-R10) to distinguish responsibilities for updating and distributing emergency plans and to separately identify the responsibilities of the ISO and an operator of a transmission facility.</p> <p>Amended review period to align with other Alberta reliability standards.</p> |   |              |
|   |  | <p><b>R8</b> Each <b>operator</b> of a <b>transmission facility</b> must review its plans for load shedding once every calendar year and update as required.</p>   | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p>   |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2 | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|----------------|---|---|--|---|--------------|
|                |   |   | <p>Separated NERC requirement R5 into four requirements (R7-R10) to distinguish responsibilities for updating and distributing emergency plans and to separately identify the responsibilities of the ISO and an operator of a transmission facility.</p> <p>Amended review period to align with other Alberta reliability standards.</p>  |   |              |
|                | <p><b>R10</b> The <b>ISO</b> and <b>TFOs</b> must each provide a copy of its updated emergency plans, as applicable, to adjacent <b>TFOs</b>, the <b>VRC</b> and to its <b>interconnected transmission operators</b> and <b>adjacent balancing authorities</b>.</p> | <p><b>R9</b> The <b>ISO</b> must provide a copy of its updated capacity and energy emergency plan, plans for load shedding and plans to mitigate operating emergencies on the <b>transmission system</b> to any affected:</p> <p>(a) <b>operator</b> of a <b>transmission facility</b>;</p> <p>(b) adjacent <b>interconnected transmission operator</b>; and</p> <p>(c) adjacent <b>balancing authority</b>, and to the <b>WECC</b> Reliability</p> | <p><input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted</p> <p>Separated NERC requirement R5 into four requirements (R7-R10) to distinguish responsibilities for updating and distributing emergency plans and to separately identify the responsibilities of the ISO and an operator of a transmission facility.</p> |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup> | EOP-001-AB-2   | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|--|--|--|---|--------------|
|   |  | Coordinator.   | Amended review period to align with other Alberta reliability standards.   |   |              |
|   |  | <p><b>R10</b> Each <b>operator</b> of a <b>transmission facility</b> must provide a copy of its updated plans to mitigate operating emergencies on the <b>transmission system</b> and plans for load shedding to any affected adjacent <b>operator</b> of a <b>transmission facility</b> and the <b>ISO</b>.</p> | <p> <input type="checkbox"/> New<br/> <input checked="" type="checkbox"/> Amended<br/> <input type="checkbox"/> Deleted         </p> <p>Separated NERC requirement R5 into four requirements (R7-R10) to distinguish responsibilities for updating and distributing emergency plans and to separately identify the responsibilities of the ISO and an operator of a transmission facility.</p> <p>Amended review period to align with other Alberta reliability standards.</p> |   |              |
| <p><b>R6.</b> The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This</p> |  |  | <p> <input type="checkbox"/> New<br/> <input type="checkbox"/> Amended<br/> <input checked="" type="checkbox"/> Deleted         </p> <p>Deleted NERC EOP-001-2</p>   |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2 | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|---|--------------|--|---|--------------|
| <p>coordination includes the following steps, as applicable:</p> <p><b>R6.1.</b> The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.</p> <p><b>R6.2.</b> 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><b>R11</b> The <b>ISO</b> and <b>TFOs</b> must each establish, maintain and test to ensure reliable communications, as applicable, between adjacent <b>TFOs</b>, <b>interconnected transmission operators</b> and <b>adjacent balancing authorities</b> when coordinating emergency plans.</p> |              | <p>requirement R6 from the Alberta reliability standard. This requirement is redundant with the adoption of Alberta requirement R4.3.</p> <p><input type="checkbox"/> New<br/> <input type="checkbox"/> Amended<br/> <input checked="" type="checkbox"/> Deleted</p> <p>NERC EOP-001-2 requirement R6.1 will be covered in R1 and R2 of Alberta Reliability Standard COM-001-AB-1.1 that is currently under development.</p> <p><b>Alberta Variance<sup>4</sup>:</b> NERC EOP-001-2 requirement R6.2 is deleted as the ISO enters into operating agreements with adjacent balancing authorities that contain provisions for emergency assistance in accordance with Alberta EOP-001-AB-1 requirement</p> |   |              |

<sup>4</sup> An Alberta variance is a change from the US Reliability Standard that the AESO has determined is material.  
 Issued for Stakeholder Consultation: 2011-09-13

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup> | EOP-001-AB-2 | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2  | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|--|--------------|---|---|--------------|
| <p><b>R6.3.</b> 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><b>R6.4.</b> The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating</p> |  |              | <p>R1. Further, the NERC requirement for arranging new interchange agreements to provide for emergency capacity or energy transfers was not adopted as the ISO uses market mechanism to obtain energy from market participants during emergencies.</p> <p><b>Alberta Variance<sup>5</sup>:</b> NERC EOP-001-2 requirement R6.3 to coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply is not applicable in Alberta as it goes against the market structure in Alberta</p> <p><b>Alberta Variance<sup>6</sup>:</b> NERC EOP-001-2 requirement R6.4 to arrange deliveries of electrical energy or fuel from remote systems through normal operating channels is</p> |   |              |

<sup>5</sup> An Alberta variance is a change from the US Reliability Standard that the AESO has determined is material.

<sup>6</sup> An Alberta variance is a change from the US Reliability Standard that the AESO has determined is material.

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2  | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2   | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2            | Stakeholder Comments (Insert comments here) | AESO Replies |
|---|---|--|---|---|--------------|
| channels.   |   |  | not applicable in Alberta as it goes against the market structure in Alberta. |   |              |
| <b>M1.</b> The Transmission Operator and Balancing Authority shall have its emergency plans available for review by the Regional Reliability Organization at all times.                         |   |  |   |   |              |
| <b>M2.</b> The Transmission Operator and Balancing Authority shall have its two most recent annual self assessments available for review by the Regional Reliability Organization at all times. |   |  |   |   |              |
|   | <b>MR1</b> Provisions for emergency energy exist between the <b>ISO</b> and at least one <b>adjacent balancing authority</b> . A reserve sharing agreement or an agreement for emergency energy exists with a remote balancing authority. | <b>MR1</b> Evidence of having at least one (1) operating agreement with an <b>adjacent balancing authority</b> as required in requirement R1 exists. |   |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2 | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2 | Stakeholder Comments (Insert comments here) | AESO Replies |
|----------------|---|---|--|---|--------------|
|                | <p><b>MR2</b> Plans exist for mitigating insufficient generating capacity.</p>  | <p><b>MR2</b> Evidence of developing, maintaining and implementing a capacity and energy emergency plan as required in requirement R2 exists. Evidence may include a dated, current capacity and energy emergency plan and communications or training to the operating personnel.</p>   |  |   |              |
|                | <p><b>MR3</b> Plans exist to meet <b>ISO</b> transmission reliability criteria and mitigate operating emergencies on the transmission system.</p> <p><b>MR4</b> Plans were followed, ISO reliability criteria were met and operating emergencies were mitigated when system conditions required the plans to be followed.</p> | <p><b>MR3</b> Evidence of developing, maintaining and implementing plans to mitigate operating emergencies on the <b>transmission system</b> as required in requirement R3 exists. Evidence may include dated, current plans to mitigate operating emergencies on the <b>transmission system</b> and communications or training to the operating personnel.</p> |  |   |              |
|                | <p><b>MR5</b> Plans exist for implementing a set of plans for load shedding.</p>  | <p><b>MR4</b> Evidence of developing, maintaining and implementing load shedding plans as required in requirement R4 exists. Evidence may include dated, current plans for load shedding and communications or training to the</p>  |  |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2 | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>   | EOP-001-AB-2  | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2 | Stakeholder Comments (Insert comments here) | AESO Replies |
|----------------|--|---|--|---|--------------|
|                |  | operating personnel.  |  |   |              |
|                | <b>MR6</b> Plans exist for implementing a set of plans for system restoration.   |   |  |   |              |
|                | <p><b>MR7.1</b> Communication protocols exist as per requirement R7.1</p> <p><b>MR7.2</b> Controlling actions to resolve emergencies exist as per requirement R7.2.</p> <p><b>MR7.3</b> Coordinated tasks to resolve emergencies exist as per requirement R7.3.</p> <p><b>MR7.4</b> Callout procedures exist to obtain additional staff during an emergency.</p> | <b>MR5</b> Evidence of including the items in emergency plans as required in requirement R5 exists. Evidence may include emergency plans that contain items listed in requirement R5.   |  |   |              |
|                | <b>MR8</b> Documentation exists and shows the elements from Attachment 1 were considered.  | <b>MR6</b> Evidence of considering the elements in Appendix 1 as required in requirement R6 exists. Evidence may include documentation indicating which elements from Appendix 1 were not included in the capacity and emergency plan and the rationale why they were not included. |  |   |              |
|                | <b>MR9</b> Evidence exists that each   | <b>MR7</b> Evidence of reviewing and  |  |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2 | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup>  | EOP-001-AB-2   | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2 | Stakeholder Comments (Insert comments here) | AESO Replies |
|----------------|---|--|--|---|--------------|
|                | emergency plan was reviewed and updated, as per requirement R9.   | updating each plan as required in requirement R7 exists. Evidence may include documentation confirming each plan was reviewed once every calendar year and updated as required.                                  |  |   |              |
|                |   | <b>MR8</b> Evidence of reviewing and updating plans as required in requirement R8 exists. Evidence may include documentation confirming each plan was reviewed once every calendar year and updated as required. |  |   |              |
|                | <b>MR10</b> Confirmation exists that the <b>ISO</b> and <b>TFOs</b> sent updated emergency plans as per requirement R10 | <b>MR9</b> Evidence of providing each updated plan as required in requirement R9 exists. Evidence may include email or mail to appropriate recipients that identifies contents submitted.                        |  |   |              |
|                |   | <b>MR10</b> Evidence of providing updated plans as required in requirement R10 exists. Evidence may include email or mail to appropriate recipients that identifies contents submitted.                          |  |   |              |
|                | <b>MR11</b> Evidence exists that  |  |  |   |              |

**COMPARISON BETWEEN NERC EOP-001-2 AND ALBERTA EOP-001-AB-2  
EMERGENCY OPERATIONS PLANNING**

| NERC EOP-001-2   | EOP-001-AB-1 from previous consultation (based on NERC EOP-001-1) <sup>1</sup> | EOP-001-AB-2     | Explanation of differences between EOP-001-AB-2 and NERC EOP-001-2   | Stakeholder Comments (Insert comments here) | AESO Replies |
|--|--|------------------|--|---|--------------|
|  | tests have been conducted as per requirement R11,                              |                  |  |   |              |
| <p><b>Compliance</b><br/>To view the compliance section D of the NERC reliability standard follow this link:<br/><a href="http://www.nerc.com/files/BAL-002-0.pdf">http://www.nerc.com/files/BAL-002-0.pdf</a></p> |  |                  | <p>The Alberta reliability standards do not contain a compliance section. Compliance with all Alberta reliability standards is completed in accordance with the Alberta Reliability Standards Compliance Monitoring Program, available on the AESO website at:<br/><a href="http://www.aeso.ca/loadsettlement/17189.html">http://www.aeso.ca/loadsettlement/17189.html</a></p> |   |              |
| Regional Differences<br>None identified.   |  | None identified. | Not applicable in Alberta  |   |              |

## Appendix 1<sup>7</sup>

### Elements for Consideration in Development of Capacity and Energy Emergency Plan

1. **Bulk electric system** energy use — The reduction of the **bulk electric system's** own energy use to a minimum.
2. Public appeals — Appeals to the public through all media for voluntary load reductions and energy conservation including educational messages on how to accomplish such load reduction and conservation.
3. Load management — Implementation of load management and voltage reductions, if appropriate.
4. Interruptible and curtailable loads — Use of interruptible and curtailable load to reduce capacity requirements or to conserve the fuel in short supply.
5. Maximizing **generating unit** output and availability — The operation of all generating sources to maximize output and availability. This should include plans to winterize **generating units** and **aggregated generating facilities** during extreme cold weather.
6. Notifying independent power producers (IPP) — Notification of cogeneration and independent power producers to maximize output and availability.
7. Requests of government — Requests to appropriate government agencies to implement programs to achieve necessary energy reductions.
8. Load curtailment — A mandatory load curtailment plan to use as a last resort. This plan should address the needs of critical loads essential to the health, safety and welfare of the community. Address firm load curtailment.
9. Notification of government agencies — Notification of appropriate government agencies as the various steps of the operating emergency plan are implemented.
10. Notifications to operating entities — Notifications to other operating entities as steps in the operating emergency plan are implemented.

<sup>7</sup> Alberta Variance – Deleted some elements in Appendix 1 that are to be considered when developing an emergency plan as these elements (fuel supply and inventory, fuel switching, optimize fuel supply and appeals to customers to use alternate fuels) are managed through the market structure in Alberta. An Alberta variance is a change from the US Reliability Standard that the AESO has determined is material.

| Definitions           | Stakeholder Comments<br>(Insert comments here) | AESO Replies |
|-----------------------|--|--------------|
| None                  |  |              |
| <b>(a) Removals</b>   |  |              |
| <b>(b) Amendments</b> |  |              |