

July 23, 2019

To: Market Participants and Other Interested Parties (“Stakeholders”)

Re: **Consultation Letter for Proposed New and Amended Alberta Reliability Standard Definitions:**

- 1) **Proposed new “radial circuit”;** and
- 2) **Proposed new “system access service” and**
- 3) **Proposed amended “bulk electric system”**

**(collectively referred to as “new and amended ARS-related definitions”)**

Section 19 of the *Transmission Regulation* requires the Alberta Electric System Operator (“AESO”) to consult with stakeholders likely to be directly affected by the AESO’s adoption or making of Alberta reliability standards, and also requires the AESO to forward the proposed Alberta reliability standards to the Alberta Utilities Commission (“Commission”) for review along with the AESO’s recommendation that the Commission approve or reject them.

Consistent with the AESO’s drafting principles for authoritative documents, the AESO has determined that it is appropriate for defined terms used in the Alberta reliability standards to go through the same consultation process as the Alberta reliability standards themselves. Accordingly, the AESO is providing notice and seeking comments from stakeholders on the attached proposed new and amended ARS-related definitions.

## Background

The existing “bulk electric system” definition in the AESO [Consolidated Authoritative Document Glossary](#) (“CADG”) is quite general, and lacks clarity and specificity. Additional details are currently being added to the applicability sections of reliability standards to compensate for the general wording in the existing “bulk electric system” definition. For example, the current definition does not include the sizes of generating units and aggregated generating facilities that are part of the bulk electric system. Consequently the sizes of the generating units and aggregated generating facilities are added to the applicability section of Alberta reliability standards. The proposed amended definition provides clarity and specificity such that the applicability section of reliability standards that apply at the bulk electric system level can be simplified. More importantly, however, is that the proposed amended definition more clearly identifies the bulk electric system facilities that are important for maintaining reliable operations within Alberta.

The term “radial circuit” is a new definition that is being proposed for use in the proposed amended definition of “bulk electric system”. The definition of “radial circuit” includes two clarifications that are in the NERC “bulk electric system” definition as these clarifications have been assessed to be appropriate for use in the broader application of the definition “radial circuit”. These clarifications identify how circuits are treated that are energized at 50 kV or higher and have a normally open point between them; and how circuits are treated that create a contiguous loop, where there is a connection through facilities energized at less than 50 kV.

The term “system access service” is an existing defined term in the CADG for use in the ISO tariff, and is now being proposed for use in the reliability standards. This term is used in the proposed amended definition of “bulk electric system” to identify the substation that a generating unit or aggregated generating facility connects through to the transmission system. The identification of this substation is then used to determine if the generating unit or aggregated generating facility connects at a bulk electric system voltage level of 100 kV or higher.

### Summary of the Proposed Definitions

The AESO proposes to incorporate the following new defined terms along with their related definition into the AESO’s CADG for use in the Alberta reliability standards:

- a) “radial circuit”; and
- b) “system access service”.

Amendments to the following existing definition are proposed for incorporation into the AESO’s CADG:

- a) “bulk electric system”.

The proposed amended “bulk electric system” definition was derived from the NERC “bulk electric system” definition but includes the following Alberta variances:

1. does not include the NERC exemption E2 for generating units on the customer’s side of the retail meter where the net capacity provided to the BES does not exceed 75 MVA;
2. does not include the NERC exemption E3 for “local networks”;
3. does not include the individual generating units of an aggregated generating facility; and
4. does not include an exemption for generating units that connect to off-site load through facilities that are non-“bulk electric system” where the generating unit also connects through to “bulk electric system” transmission facilities at the same site. (Note: This exemption is not stated in the NERC definition but is illustrated in the NERC “bulk electric system” guidance document.)

The proposed amended “bulk electric system” definition generally includes a narrower set of facilities than the existing “bulk electric system” definition. However, it has been broadened to apply to the following new facilities:

1. intermediary system elements between the terminals of a bulk electric system generating unit or blackstart resource and transmission facilities energized at 100 kV or higher; and
2. reactive power resources energized at less than 100 kV that are connected through a dedicated transformer that has a high-side voltage of 100 kV or higher or through a non-dedicated transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher.

The AESO conducted a review of all existing reliability standards and identified that the new facilities being proposed for inclusion in the proposed amended definition of “bulk electric system” may be subject to additional requirements under the following reliability standards:

- CIP *Critical Infrastructure Protection Standards* – to the extent that the new facilities meet the criteria of a high, medium or low impact rating.
- FAC-008 *Facility Ratings* – to the extent that the new facilities are transmission facilities;

- IRO-002, 003 and 005 *Interconnection Reliability Operations and Coordination* - the monitoring of system elements that are part of the “bulk electric system”. Subsequent to identifying this, the AESO conducted an initial assessment and determined that there will be little to no impact to existing practices or documented processes;
- PRC-001 *Protection System Coordination* – applies to protection systems on the new facilities;
- PRC-004 *Analysis and Mitigation of Transmission and Generation Protection System Misoperation* – applies to the new facilities.

While the AESO has conducted a reasonable review of the impacts of the proposed amended “bulk electric system” definition, stakeholders are ultimately responsible for completing their own review and making their own determination as to any consequences in relation to the applicability of requirements under the reliability standards.

Please see the attached blacklined version of the proposed amended “bulk electric system” definition for all changes made to the existing Alberta reliability standard definition. When reviewing the attached proposed new and amended ARS-related definitions, stakeholders should note that all defined terms appear **bolded**. Stakeholders and other interested parties are encouraged to refer to the AESO’s CADG when reviewing definitions to ensure they have an accurate understanding of those defined terms.

### **Request for Comment**

Please use the attached *Stakeholder Comment Matrix* when submitting comments to the AESO. Only written comments will be considered in finalizing the proposed new and amended ARS-related definitions. Stakeholders should ensure that comments provided represent all interests within their organization. The scope of comments is limited to the proposed new and amended ARS-related definitions. The AESO will not consider any comments received outside of this scope.

Stakeholders are asked to provide comments no later than **August 6, 2019** to [ars\\_comments@aeso.ca](mailto:ars_comments@aeso.ca). Adherence to deadlines is essential to the integrity of Alberta reliability standard comment process. As such, the AESO may not publish, reply to, or otherwise consider any stakeholder comments received after August 1, 2019.

In August, the AESO will publish all comments received. The AESO also expects to publish replies to the comments with the proposed new and amended ARS-related definitions in August 2019.

If the AESO does not receive comments regarding the proposed new and amended ARS-related definitions, the AESO expects to forward the proposed new and amended ARS-related definitions to the Commission in August 2019.

### **Proposed Effective Date for new and amended ARS related definitions**

The AESO is proposing the following effective dates for the proposed amended “bulk electric system” definition

- October 1, 2019, for facilities that are currently considered part of the bulk electric system under the existing definition and will continue to be part of the bulk electric system under the proposed amended definition; and
- October 1, 2021, for facilities that are not currently considered part of the bulk electric system under the existing definition but will be part of the bulk electric system under the proposed amended definition.

The AESO is also proposing an October 1, 2019 effective date for the proposed new defined terms “radial circuit” and “system access service”.

## Attachments to Consultation Letter

The following documents are attached:

1. [Stakeholder Comment Matrix – new and amended ARS related definitions.](#)

Sincerely,

*“Melissa Mitchell-Moisson”*

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Attachments