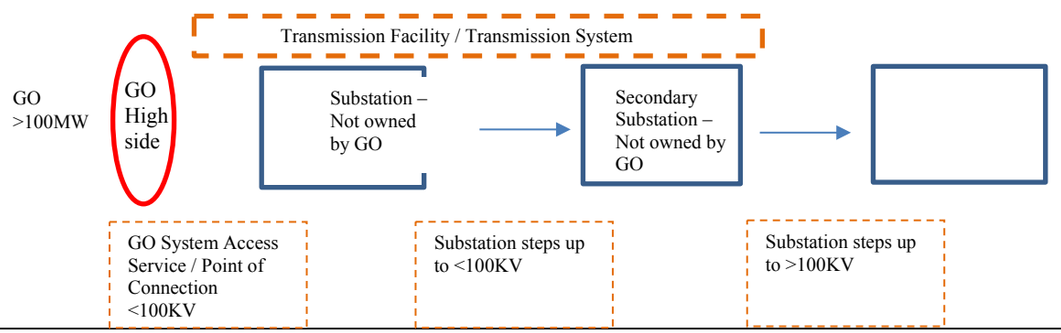
Stakeholder Comment Matrix – July 23, 2019

Consultation on Proposed new and amended ARS related definitions

Date of Request for Comment: July 23, 2019	Contact: Shannon Ferdinand
Period of Consultation: July 23, 2019 through August 6, 2019	Phone: 780-392-5442
Comments From: Capital Power GP Holdings Inc. (“Capital Power”)	Email: SFerdinand@capitalpower.com
Date [yyyy/mm/dd]: 2019/08/06	

Listed below is the summary description of changes for the proposed new and amended ARS related definitions. Please refer back to the Consultation Letter under the “Attachments” section to view materials related to the proposed new and amended ARS related definitions. Please place your comments/reasons for position underneath (if any).

Definitions – New		
Existing	**Proposed**	**Stakeholder Comments and/or Alternate Proposal**
No definition currently exists for use in the Alberta reliability standards	“**radial circuit**” means an arrangement of contiguous **system elements** energized at 50 kV or higher that: (a) extend from a **system element** on the networked **transmission system** in a linear or branching configuration; (b) connect to one or more of a load facility, a **generating unit**, or an **aggregated generating facility**; and (c) comprise the only circuit by which power can flow between the networked **transmission system** and the facilities	Capital Power has no comments.

	identified in item (b) under normal operating conditions, and includes an arrangement where the circuit energized at 50 kV or higher is connected to another circuit energized at 50 kV or higher, either through a switching device that is operated normally open or through facilities energized at less than 50 kV where the circuit would be a **radial circuit** if the connection did not exist.		
No definition currently exists for use in the Alberta reliability standards	"**system access service**" as defined in the Act means the service obtained by **market participants** through a connection to the **transmission system**, and includes access to exchange electric energy and **ancillary services**.	The current AESO "**point of connection**" definition part (i) states: *a point at which electric energy is transferred between a transmission facility that is not an industrial system, and (i) the high voltage side of any aggregated generating facilities or generating unit* For GO/GOPs - Capital Power's interpretation of the proposed "**system access service**" definition is same as the existing "**point of connection**" definition part (i) for a generating unit. Please confirm if this is acceptable.  	

Definitions – Amended

Existing	Proposed	Blackline of Existing and Proposed	Stakeholder Comments and/or Alternate Proposal
"bulk electric system" as defined by the Regional Reliability Organization, means the electrical	"**bulk electric system**" means all **system elements** that are included in the following: (i) all **system elements** that have all terminals energized	"**bulk electric system**" means all **system elements** that are included in the following: (i) all **system elements** that have all terminals energized at 100 kV or higher that are not part of a **radial circuit**;	In connection to part (iv) of the proposed "**bulk electric system**" definition, Capital Power's interpretation is outlined below. Please confirm if this is acceptable.

generation resources, transmission lines, **interconnections**, with neighbouring **systems**, and associated equipment, generally operated at voltages of one hundred (100) kV or higher; radial **transmission facilities** serving only load with one (1) transmission source are generally not included in this definition.	at 100 kV or higher that are not part of a **radial circuit**; (ii) a **radial circuit** comprised of **system elements** that have all terminals energized at 100 kV or higher where the **radial circuit** connects to: (a) any facility included in items (iv) through (vii) below; or (b) 2 or more generating resources, being **generating units** and **aggregated generating facilities**, that have a combined **maximum authorized real power** higher than 67.5 MW; (iii) a transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher; (iv) a **generating unit** that has a **maximum authorized real power** higher than 18 MW where **system access service** is provided through a switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher, including all **system elements** from the terminal of the **generating unit** to the **transmission facilities** energized at 100 kV or higher; (v) an **aggregated generating facility** that has a **maximum authorized real power** higher than 67.5 MW where	(ii) a **radial circuit** comprised of **system elements** that have all terminals energized at 100 kV or higher where the **radial circuit** connects to: (a) any facility included in items (iv) through (vii) below; or (b) 2 or more generating resources, being **generating units** and **aggregated generating facilities**, that have a combined **maximum authorized real power** higher than 67.5 MW; (iii) a transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher; (iv) a **generating unit** that has a **maximum authorized real power** higher than 18 MW where **system access service** is provided through a switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher, including all **system elements** from the terminal of the **generating unit** to the **transmission facilities** energized at 100 kV or higher; (v) an **aggregated generating facility** that has a **maximum authorized real power** higher than 67.5 MW where **system access service** is provided through a switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher, including all **system elements** from the collector bus to the **transmission facilities** energized at 100 kV or higher, and excluding the **generating units** and the collector system feeders; (vi) all **generating units** and **aggregated generating facilities** where **system access service** is provided through a common switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher and the **generating units** and **aggregated generating facilities** have a combined **maximum authorized real power** higher than 67.5 MW, including all **system elements** from the terminal of each **generating unit** and from the collector bus of each **aggregated generating facility** to **transmission facilities** energized at 100 kV or higher, and excluding the **generating units**	• Under the part (iv) of the proposed "**bulk electric system**" definition, a generating unit is <u>not</u> part of the proposed "**bulk electric system**" if its "**system access service**" is at the voltage level below 100 kV and is connected to the "**transmission system**" energized at the voltage level below 100 kV.

	system access service is provided through a switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher, including all **system elements** from the collector bus to the **transmission facilities** energized at 100 kV or higher, and excluding the **generating units** and the collector system feeders; (vi) all **generating units** and **aggregated generating facilities** where **system access service** is provided through a common switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher and the **generating units** and **aggregated generating facilities** have a combined **maximum authorized real power** higher than 67.5 MW, including all **system elements** from the terminal of each **generating unit** and from the collector bus of each **aggregated generating facility** to **transmission facilities** energized at 100 kV or higher, and excluding the **generating units** and collector system feeders of each **aggregated generating facility**; (vii) a **blackstart resource**,	and collector system feeders of each **aggregated generating facility**; (vii) a **blackstart resource**, including all **system elements** from the terminal of the **blackstart resource** to **transmission facilities** that are energized at 100 kV or higher; and (viii) a static or dynamic **reactive power** resource that is dedicated to supplying or absorbing **reactive power** to or from the **transmission system** and is connected: (a) to **transmission facilities** energized at 100 kV or higher; (b) through a dedicated transformer that is directly connected to **transmission facilities** energized at 100 kV or higher; or (c) through a non-dedicated transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher.	

	including all **system elements** from the terminal of the **blackstart resource** to **transmission facilities** that are energized at 100 kV or higher; and (viii) a static or dynamic **reactive power** resource that is dedicated to supplying or absorbing **reactive power** to or from the **transmission system** and is connected: (a) to **transmission facilities** energized at 100 kV or higher; (b) through a dedicated transformer that is directly connected to **transmission facilities** energized at 100 kV or higher; or (c) through a non-dedicated transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher.		