Stakeholder Comment Matrix – July 23, 2019

Consultation on Proposed new and amended ARS related definitions

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Date of Request for Comment: July 23, 2019	Contact Raiveen Gill
Period of Consultation: July 23, 2019 through August 6, 2019	Phone: 780-412-3435
Comments From: EPCOR Distribution & Transmission Inc.	Email: rgill@epcor.com
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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	 Given the significance of these changes, EDTI believes that changes to definitions such as BES and radial are better addressed in AESO tariff proceedings rather than ad hoc consultations.
	higher that: (a) extend from a system element on the	2. Does the AESO anticipate any changes to transmission project cost classifications with this proposed definition?
	networked transmission system in a linear or branching configuration;	3. Why is this definition of radial circuit for ARS different from what has been proposed in the AESO's 2018 tariff (section 4.2)?
	 (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 	4. Can the AESO provide the rationale behind the inclusion of "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." in part (c)?

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	identified in item (b)		
	under permet operating		
	conditions,		
	where the circuit operated at 50		
	where the circuit energized at 50		
	another circuit operaized at 50 kV		
	another circuit energized at 50 kV		
	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	"system access service" as		
for use in the Alberta	defined in the Act means the		
reliability standards	service obtained by market		
	participants through a connection		
	to the transmission system , and		
	includes access to exchange		
	electric energy and ancillary		
	services.		
Definitions – Amended			
Existing	Proposed	Blackline of Existing and Proposed	Stakeholder Comments and/or Alternate Proposal
" bulk electric system " as	"bulk electric system" means all	"bulk electric system" means all system elements that	1. Given the significance of these changes, EDTI believes
defined by the Regional	system elements that are	are included in the following:	that changes to definitions such as BES and radial are
Reliability Organization,	(i) all evotom elemente that	(i) all system elements that have all terminals	better addressed in AESO tariff proceedings rather than
means the electrical	(i) dii system elements tilat	radial circuit	ad hoc consultations.
generation resources,	at 100 kV or higher that are	(ii) a radial circuit comprised of system elements that	
transmission lines,	not part of a radial circuit.	have all terminals energized at 100 kV or higher	2. Does the AESO anticipate any changes to transmission
Interconnections, with	(ii) a radial circuit comprised of	where the radial circuit connects to:	project cost classifications with this proposed definition?
neighbouring systems, and	system elements that have	(a) any facility included in items (iv) through (vii)	
associated equipment,	all terminals energized at	below; or	3. Please clarify "direct connection" and "common
voltages of one hundred	100 kV or higher where the	(b) 2 or more generating resources, being	switchyard" in parts (iv), (v), and (vi).
(100) kV or higher radial	radial circuit connects to:	generating units and aggregated generating	
transmission facilities	(a) any facility included in	facilities, that have a combined maximum	4. It is not clear how the presence of a third winding
serving only load with one	items (iv) through (vii)	authorized real power higher than 67.5 MW;	(whose voltage is ≥100kV) on a non-dedicated



(1) transmission source are		below; or	(iii)	a transformer that has its primary terminal and at		transformer (with a high-side voltage that is ≥100kV and
generally not included in this		(b) 2 or more generating	. ,	least one secondary terminal energized at 100 kV or		a low-side winding <100kV which is connected to a
definition.		resources, being		higher;		capacitor bank) changes whether the capacitor bank is
		generating units and	(iv)	a generating unit that has a maximum authorized		part of the BES or not.
		aggregated generating		real power higher than 18 MW where system		
		facilities, that have a		access service is provided through a switchyard	5.	EDTI finds the proposed format of BES hard to interpret
		combined maximum		that is directly connected to transmission facilities		and apply. EDTI suggests a re-write or alternate
		authorized real power		energized at 100 kV or higher, including all system		presentation of the BES definition (i.e. a matrix or
		higher than 67.5 MW;		elements from the terminal of the generating unit		decision workflow) to better clarify the requirements.
	(iii)	a transformer that has its		to the transmission facilities energized at 100 kV		
		primary terminal and at least		or higher;	6.	Is the AESO able to provide a map of what is to be
		one secondary terminal	(v)	an aggregated generating facility that has a		included in the BES?
		energized at 100 kV or		maximum authorized real power higher than 67.5		
		higher;		MW where system access service is provided	7.	ARS TPL-002 System Performance Following Loss of a
	(iv)	a generating unit that has a		through a switchyard that is directly connected to		Single BES Element applies to transmission facilities
		maximum authorized real		transmission facilities energized at 100 kV or		rated 69 kV and above. The proposed BES definition
		power higher than 18 MW		higher, including all system elements from the		appears to apply only transmission facilities rated 100
		where system access		collector bus to the transmission facilities		kV and above. Does the AESO see an inconsistenecy
		service is provided through		energized at 100 kV or higher, and excluding the		between TPL-002 and the proposed BES defintion?
		a switchyard that is directly		generating units and the collector system feeders;		
		connected to transmission	(vi)	all generating units and aggregated generating		
		facilities energized at 100		facilities where system access service is provided	8.	Please explain why the proposed BES definition ratings
		kV or higher, including all		through a common switchyard that is directly		are not aligned with NERC?
		system elements from the		connected to transmission facilities energized at	_	One the AECO clarify the recention helping eveluding
		terminal of the generating		100 kV or higher and the generating units and	9.	Can the AESO clarify the reasoning bening excluding
		unit to the transmission		aggregated generating facilities have a combined		
		facilities energized at 100		maximum authorized real power higher than 67.5		
		kV or higher;		MW, including all system elements from the	10) is the AESO able to provide a comparison of the
	(v)	an aggregated generating		terminal of each generating unit and from the		application of LAN in Edmonton and Calgary's sonvice
		facility that has a maximum		collector bus of each aggregated generating		territories with the proposed RES definition?
		authorized real power		facility to transmission facilities energized at 100		
		nigner than 67.5 MW where		kv or nigner, and excluding the generating units		
		system access service is		and collector system feeders of each aggregated		
		provided through a	()	generating facility;		
		switchyard that is directly	(VII)	a plackstart resource, including all system		
				elements from the terminal of the blackstart		
		tacilities energized at 100		resource to transmission facilities that are		
		κν or nigner, including all	6.000	energized at 100 kV or nigner; and		
		system elements from the	(VIII)	a static or dynamic reactive power resource that is		
				dedicated to supplying or absorbing reactive power		
		transmission facilities		to or from the transmission system and is		

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	energized at 100 kV or	CC	connected:	
	higher, and excluding the	(a	a) to transmission facilities energized at 100 kV	
	generating units and the		or higher;	
	collector system feeders;	(b	b) through a dedicated transformer that is directly	
(vi)	all generating units and		connected to transmission facilities energized	
	aggregated generating		at 100 kV or higher; or	
	facilities where system	(C	c) through a non-dedicated transformer that has its	
	access service is provided		primary terminal and at least one secondary	
	through a common		terminal energized at 100 kV or higher.	
	switchyard that is directly		с с	
	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			
(*")	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			
(****)	nower resource that is			
	dedicated to supplying or			
	acaloated to supprying of			

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 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. 	
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