Market Participant Comment and AESO Replies Matrix – August 14, 2018

Proposed New Alberta Reliability Standard PRC-019-AB-2, *Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection* ("proposed PRC-019-AB-2")

Date of Request for Comment: June 21, 2018

Period of Consultation: June 21, 2018 through July 12, 2018

Alberta Reliability Standard	Market Participant Comments and/or Alternative Proposal	AESO Replies
New The AESO is seeking comments from market participants with regard to the following matters: 1. Are there any requirements contained in proposed PRC-019-AB-2 that are not clearly articulated? If yes, please indicate the specific section of proposed new EOP-005-AB-2, describe the concern and suggest alternative language. 2. Please provide any additional comments regarding proposed PRC-019-AB-2.	**ENMAX Energy Corporation ("ENMAX")** R1 states the following: "Each **legal owner** of a **transmission facility**, **legal owner** of a **generating unit** and **legal owner** of an **aggregated generating facility** must, by the effective date of this **reliability standard** and at a maximum of every 5 calendar years, coordinate the voltage regulating system controls, including in-service limiters and protection functions, with the applicable equipment capabilities and settings of the applicable **protection system** devices and functions, assuming normal automatic voltage regulator control loop and steady-state system operating conditions, by verifying the following coordination items for each applicable facility: (a) the in-service limiters are set to operate before the **protection system** of the applicable facility in order to avoid disconnecting the **generating unit** or synchronous condenser unnecessarily; and (b) the applicable in-service **protection system** devices are set to operate to isolate or de-energize equipment in order to limit the extent of damage when operating conditions exceed equipment capabilities or stability limits." 1. EEC would like further clarity on the reasoning for the '5 calendar years' timeframe. Given that protection setpoints are relatively static, EEC proposes a 20 calendar year timeframe for this requirement.	1. The Alberta reliability standards are derived from the North American Electric Reliability Corporation ("NERC") reliability standards. The AESO has observed that improper coordination between generator protective relays, generator voltage regulator

		controls and limit functions can lead to tripping of generators during system disturbances (eg. tripping of a generator on a protective relay before a limiter gets a chance to act), which could create system reliability issues. Considering the criticality and potential impacts on the interconnected electric system, and to remain consistenty with the NERC, the AESO maintains its position that the validation requirements in R1 be completed at an interval of 5 calendar years.
	TransAlta Corporation ("TransAlta") 2. TransAlta wishes to thank the AESO for hosting a technical work group on May 29, 2018; it was a useful discussion forum. 3. TransAlta requests that the AESO include guidance material from the AESO Stakeholder PRC-019 Technical Workshop Presentation dated May 29, 2018 (attached) in the form of an Information Document (ID) accompanying this Standard. 4. TransAlta requests a three-year (12 calendar quarters) implementation period after effective date. The extra time of four quarters will allow TransAlta to suitably plan and execute implementation for all applicable sites/assets.	2. The AESO acknowledges TransAlta's comment. 3. The AESO has considered this feedback along with similar feedback from the Technical Work Group and agrees. The AESO will develop and post an information document. 4. The AESO agrees that a longer implementation period of 12 calendar quarters is reasonable and will amend PRC-019 accordingly.