



Alberta Electric System Operator

Proposed updates to Alberta's transmission planning and system operating limit reliability standards and definitions

May 11, 2026

Alberta Utilities Commission

Decision 30139-D01-2026

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system operating limit reliability standards and definitions

Proceeding 30139

Applications 30139-A001 and 30139-A002

May 11, 2026

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1 Decision summary

1. In this decision, the Alberta Utilities Commission approves applications from the Alberta Electric System Operator (AESO), recommending the adoption and retirement of certain transmission planning and system operating limit reliability standards and definitions. Specifically, the AESO recommended:

- a. the adoption of 10 new transmission planning (TPL) and system operating limits (SOL) reliability standards;
- b. the retirement of 11 existing TPL and SOL reliability standards;
- c. the adoption of 15 new definitions; and
- d. the amendment of three existing definitions.

2. BHE Canada Limited (BHE), the sole intervener in this proceeding, primarily disputed the following three proposed reliability standards:

- a. TPL-001-AB-5.1 - *Transmission System Planning Performance Requirements*¹
- b. TOP-001-AB-6 - *Transmission Operations*²
- c. FAC-014-AB-3 - *Establish and Communicate System Operating Limits*³

3. BHE also challenged the implementation timeline set out in TPL-PLAN-AB-1 and certain definitions.⁴

4. For the reasons below, the Commission finds that BHE has not demonstrated that any of the proposed reliability standards or definitions to be adopted, retired or amended are technically deficient or not in the public interest.⁵

5. While the Commission approves all the reliability standards as proposed, it encourages the AESO to continue its efforts to align Alberta reliability standards with the North American

¹ Exhibit 30139-X0013, Final TPL-001-AB-5.1.

² Exhibit 30139-X0012, Final TOP-001-AB-6.

³ Exhibit 30139-X0007, Final FAC-014-AB-3.

⁴ Exhibit 30139-X0014, Final TPL-001-PLAN-AB-1.

⁵ Under Section 19(6) of the *Transmission Regulation*, “[t]he Commission must follow the recommendation of the [independent system operator] that the Commission approve or reject the proposed reliability standards, agreements, criteria or directives unless an interested person satisfies the Commission that the ISO’s recommendation is

(a) technically deficient, or

(b) not in the public interest.”

Electric Reliability Corporation (NERC) standards where possible, and to advance its planned adoption of further reliability standards through the AESO's sync-up project.

2 Background

6. On June 30, 2025, the AESO filed applications 30139-A001 and 30139-A002 with the Commission, pursuant to Section 19(4)(b) of the *Transmission Regulation*. The AESO recommended the approval of 10 new Alberta reliability standards and 15 new definitions, along with amendments to three existing definitions, relating to transmission planning and system operating limits. Further, the AESO recommended retiring 11 existing Alberta reliability standards. The applications are part of the AESO's initiative to modernize Alberta's reliability framework.

7. The following table sets out the Alberta reliability standards and definitions proposed for adoption, retirement, and amendment in the applications.

Table 1. Alberta reliability standards and definitions in applications 30139-A001 and 30139-A002

Reliability standard category	Reliability standard	Reliability standard name/term	Proposed action
Facilities Design, Connections, and Maintenance (FAC)	FAC-003-AB-5	<i>Transmission Vegetation Management</i>	New
FAC	FAC-011-AB-4	<i>System Operating Limits Methodology for the Operations Horizon</i>	New
FAC	FAC-014-AB-3	<i>Establish and Communicate System Operating Limits</i>	New
Interconnection Reliability Operations and Coordination (IRO)	IRO-008-AB-3	<i>Reliability Coordinator Operational Analyses and Real-time Assessments</i>	New
Protection and Control (PRC)	PRC-002-AB-4	<i>Disturbance Monitoring and Reporting Requirements</i>	New
PRC	PRC-023-AB-6	<i>Transmission Relay Loadability</i>	New
PRC	PRC-026-AB-2	<i>Relay Performance During Stable Power Swings</i>	New
Transmission Planning (TPL)	TPL-001-AB-5.1	<i>Transmission System Planning Performance Requirements</i>	New
TPL	TPL-PLAN-AB-1	<i>Implementation Plan for TPL-001</i>	New
Transmission Operations (TOP)	TOP-001-AB-6	<i>Transmission Operations</i>	New
FAC	FAC-003-AB1-1	<i>Transmission Vegetation Management Program</i>	Retirement
FAC	FAC-010-AB1-2.1	<i>System Operating Limits Methodology for the Planning Horizon</i>	Retirement
FAC	FAC-011-AB-2	<i>System Operating Limits Methodology for the Operations Horizon</i>	Retirement
FAC	FAC-014-AB1-2	<i>Establish and Communicate System Operating Limits</i>	Retirement
IRO	IRO-008-AB-2	<i>Reliability Coordinator Operational Analyses and Real-time Assessments</i>	Retirement
PRC	PRC-002-AB-2	<i>Disturbance Monitoring and Reporting Requirements</i>	Retirement
PRC	PRC-023-AB-4	<i>Transmission Relay Loadability</i>	Retirement
TPL	TPL-001-AB-0	<i>System Performance Under Normal Conditions</i>	Retirement
TPL	TPL-002-AB1-0	<i>System Performance Following Loss of a Single BES Element</i>	Retirement

Reliability standard category	Reliability standard	Reliability standard name/term	Proposed action
TPL	TPL-003-AB-0	<i>System Performance Following Loss of Two or More BES Elements</i>	Retirement
TPL	TPL-004-AB-0	<i>System Performance Following Extreme BES Events</i>	Retirement
Definition	N/A	"consequential load loss"	New
Definition	N/A	"corrective action plan"	New
Definition	N/A	"flashover"	New
Definition	N/A	"long-term transmission planning horizon"	New
Definition	N/A	"minimum vegetation clearance distance"	New
Definition	N/A	"near-term transmission planning horizon"	New
Definition	N/A	"non-consequential load loss"	New
Definition	N/A	"operating plans"	New
Definition	N/A	"operating procedure"	New
Definition	N/A	"planning assessment"	New
Definition	N/A	"rated electrical operating conditions"	New
Definition	N/A	"real-time assessment"	New
Definition	N/A	"stability limit"	New
Definition	N/A	"system voltage limits"	New
Definition	N/A	"vegetation inspection"	New
Definition	N/A	"balancing authority"	Amendment
Definition	N/A	"interconnection"	Amendment
Definition	N/A	"system operating limit"	Amendment

8. The Commission issued a notice of applications providing interested parties an opportunity to file statements of intent to participate. The sole party to register was BHE.

9. BHE owns and operates wind and gas generation facilities in Alberta and is the owner and operator of the Montana-Alberta Tie Line (MATL), an international merchant transmission line connecting Alberta and Montana. As an owner of generation assets and an intertie in Alberta, BHE has a direct interest in how the transmission system is planned and operated. Accordingly, the Commission granted standing to BHE.

10. A written hearing process was established, which included a technical meeting, intervener evidence, information requests and responses, applicant reply evidence, and written argument and reply argument.

3 Regulatory framework for Alberta reliability standards

11. Section 19 of the *Transmission Regulation* establishes the framework governing the Commission's approval of Alberta reliability standards. Under Section 19(4), before adopting or making reliability standards, the AESO must consult with market participants likely to be directly affected and must then forward the proposed reliability standards to the Commission for review, along with a formal recommendation to approve or reject them. Under Section 19(5), the Commission must approve or refuse to approve the proposed reliability standards and advise the AESO of its decision.

12. Section 19(6) of the *Transmission Regulation* provides that the Commission must follow the AESO's recommendation to approve or reject the proposed reliability standards, unless an interested person satisfies the Commission that the AESO's recommendation is technically deficient or not in the public interest.

13. An intervener who challenges a proposed reliability standard has the onus of satisfying the Commission that the AESO's recommendation is technically deficient or not in the public interest. This legislative design reflects a deliberate policy choice to give weight to the AESO's technical expertise as Alberta's independent system operator (ISO). The Commission cannot refuse a recommendation merely because an intervener disagrees with the AESO's technical judgment, prefers an alternative design or identifies ways in which the proposed standard differs from the NERC equivalent. The Commission may reject a recommendation only where the evidentiary threshold established by Section 19(6) is met.

14. Throughout the proceeding, both parties addressed the scope of the Commission's jurisdiction. BHE requested, in addition to rejecting certain proposed reliability standards, that the Commission use its broad powers under sections 8 and 23 of the *Alberta Utilities Commission Act* to direct the AESO to amend its existing transmission planning standards, practices and models.⁶

15. While sections 8 and 23 of the *Alberta Utilities Commission Act* confer broad powers on the Commission, this proceeding was constituted under Section 19 of the *Transmission Regulation* for the specific purpose of considering whether to approve or reject the proposed reliability standards. As discussed in Section 5.2, BHE has not established that the AESO is not meeting its transmission planning obligations, and the Commission accordingly will not exercise these powers in this proceeding.

16. A key issue in this proceeding concerned the AESO's responsibility to align Alberta reliability standards with the standards established by NERC. Section 19(1) of the *Transmission Regulation* provides that the reliability standards that apply in Alberta include NERC standards to the extent those standards are adopted by the ISO (AESO). Section 21(3) further provides that the ISO must consider whether those standards can apply in Alberta and must ensure, to the extent reasonable, that any new or modified standards will not require a material change in the framework for the electricity market. Additionally, in 2010 Alberta entered a memorandum of understanding (MOU) with NERC to co-ordinate reliability oversight between North American jurisdictions. The MOU includes the following language regarding Alberta's reliability standards:

The Alberta T Reg. [*Transmission Regulation*] authorizes the adoption by AESO and approval by the Commission of AB Reliability Standards. AESO carries out consultation with market participants to determine the appropriateness of adopting US Reliability Standards and, as applicable, amendments to such standards required to comply with unique Alberta operational requirements and Alberta law.⁷

⁶ Exhibit 30139-X0079, Written Argument of BHE Canada (Proceeding 30139), PDF page 27, paragraph 85.

⁷ Exhibit 30139-X0079, Written Argument of BHE Canada (Proceeding 30139), PDF page 11, paragraph 29, citing the NERC-WECC-AESO MOU dated July 15, 2010.

17. Throughout this proceeding, BHE interpreted both the *Transmission Regulation* and the MOU as supporting its position that amendments to NERC standards may only be made where necessary to comply with unique Alberta operational requirements. BHE submitted that instances in which the AESO amended NERC standards only to avoid duplication of requirements found in other standards did not meet that test, and that this was inconsistent with the statutory scheme and therefore technically deficient.⁸

18. In light of BHE's argument, the Commission considers it necessary to comment broadly on the question of Alberta's alignment with NERC standards. NERC standards represent the collective reliability expertise of the North American electricity industry and provide a common framework for the planning and operation of interconnected power systems. Alignment with NERC standards promotes cross-jurisdictional consistency, facilitates benchmarking against prevailing reliability practices and supports the auditability of Alberta's reliability framework.

19. However, the Commission finds that neither the *Transmission Regulation* nor the MOU requires the AESO to only modify NERC standards when necessary for application in Alberta. The Commission agrees with the AESO's interpretation that the *Transmission Regulation* and the MOU impose a duty to prevent the adoption in Alberta of standards that are unsuitable, rather than to prescribe conditions limiting the AESO's ability to diverge from those standards.⁹

20. The following observations are offered for guidance and do not affect the outcome of this proceeding. The Commission encourages the AESO to maximize alignment with NERC standards wherever possible, and to approach each Alberta reliability standards project with that principle in mind. Where the AESO departs from a corresponding NERC standard, providing a clear rationale for doing so assists the Commission and potentially affected parties in assessing the standard as proposed.

4 Uncontested Alberta reliability standards and definitions

21. During the AESO's consultation and in its statement of intent to participate in this proceeding, BHE raised concerns about three proposed reliability standards (TPL-001-AB-5.1, TOP-001-AB-6 and FAC-014-AB-3), as well as proposed definitions and certain terms that, in BHE's view, should have been defined but were not.¹⁰ Following the technical meeting, and based on the insight gained from the meeting, BHE confirmed that its concerns no longer extended to the AESO's proposed definitions.¹¹ Accordingly, the following six reliability standards, as well as the proposed definitions, were ultimately not contested during the hearing process: FAC-003-AB-5, FAC-011-AB-4, IRO-008-AB-3, PRC-002-AB-4, PRC-023-AB-6 and PRC-026-AB-2.

22. Before filing the applications, as required by Section 19(4) of the *Transmission Regulation*, the AESO consulted with market participants it considered likely to be directly affected by the Alberta reliability standards and definitions. BHE challenged the adequacy of the

⁸ Exhibit 30139-X0079, Written Argument of BHE Canada (Proceeding 30139), PDF pages 14-15, paragraphs 40-42.

⁹ Exhibit 30139-X0084, AESO Reply Written Argument – 2026-02-10, PDF page 6, paragraphs 13-16.

¹⁰ Exhibit 30139-X0036, Statement of Intent to Participate and Notice of Objection – signed, PDF page 1.

¹¹ Exhibit 30139-X0061, Written Evidence of BHE Canada Limited, PDF page 4, paragraph 5, and PDF page 30, paragraph 77.

consultation since it did not include the adoption of NERC standard MOD-032 (Data for Power System Modeling and Analysis), a standard BHE considers integral to the proposed TPL-001-AB-5.1. The Commission is satisfied that the AESO met its statutory obligation to consult regarding the proposed Alberta reliability standards and definitions. The AESO's lack of consultation on adopting MOD-032 does not affect the Commission's assessment of the proposed reliability standards on the merits. This is further discussed in Section 5.3 of this decision.

23. BHE did not file evidence or argument in this proceeding challenging any of the six uncontested reliability standards or the proposed definitions. The Commission has reviewed the six uncontested reliability standards¹² and the proposed definitions on the record before it. No party satisfied the Commission that these proposed reliability standards or definitions are technically deficient or not in the public interest. The Commission therefore follows the AESO's recommendation and approves these six reliability standards, the 15 new definitions and three amended definitions proposed in Application 30139-A001.

24. BHE did not challenge the proposed retirement of any of the 11 existing reliability standards.¹³ The reliability standards that the AESO proposes to retire are replaced by adopting new standards. Accordingly, where BHE has contested the proposed reliability standards, the corresponding standards that the AESO proposed to retire are addressed in the relevant sections. The Commission provides its findings on the proposed retirements in the upcoming sections, following its assessment of the contested reliability standards.

5 TPL-001-AB-5.1

25. TPL-001-AB-5.1 consolidates and replaces four existing transmission planning standards into a single comprehensive standard governing performance requirements for Alberta's transmission system under normal and extreme contingency events. TPL-001-AB-5.1 is based on NERC's TPL-001-5.1 standard and is designed to ensure the bulk electric system can operate reliably across a wide range of probable contingencies, from normal conditions to multiple simultaneous outages.

26. BHE contested three main aspects of the proposed standard: (1) the removal of NERC requirement R1.1.4, which requires planning to account for known commitments for firm transmission service and interchange; (2) whether the AESO's interchange modelling practice, which BHE characterizes as modelling only to "reliably accommodated" levels, is consistent with the AESO's planning obligations and sufficient to support system expansion to accommodate increased intertie flows; and (3) the adequacy of ISO Rule 503.21 as a surrogate for the NERC MOD-032 standard for power system modelling data. BHE also challenged the implementation timeline set out in TPL-PLAN-AB-1.

27. The Commission approves TPL-001-AB-5.1 and TPL-PLAN-AB-1. BHE has not established that the AESO's recommendation is technically deficient or not in the public interest.

¹² FAC-003-AB-5, FAC-011-AB-4, IRO-008-AB-3, PRC-002-AB-4, PRC-023-AB-6 and PRC-026-AB-2.

¹³ FAC-003-AB1-1, FAC-010-AB1-2.1, FAC-011-AB-2, FAC-014-AB1-2, IRO-008-AB-2, PRC-002-AB-2, PRC-023-AB-4, TPL-001-AB-0, TPL-002-AB1-0, TPL-003-AB-0 and TPL-004-AB-0.

5.1 Removal of requirement R1.1.4 – known commitments for firm transmission service and interchange

28. The Commission accepts the AESO's evidence that "firm transmission service" as contemplated by NERC requirement R1.1.4 does not exist in Alberta's electricity market. Alberta's market framework does not involve transmission service reservations or capacity entitlements analogous to the firm transmission service concept embedded in the NERC standard. R1.1.4 was never operationalized in Alberta, and its removal has no effect on the AESO's actual transmission planning methodology or forecasting processes.¹⁴

29. BHE submitted that, in practice, Alberta has a product equivalent to firm transmission service, namely rate demand transmission service (Rate DTS). It argued that the NERC definition of firm transmission service is "[t]he highest quality (priority) service offered to customers under a filed rate schedule that anticipates no planned interruption," and that Rate DTS is the highest priority service offered under the AESO's filed tariff and is planned to avoid interruption.¹⁵ BHE also relied on evidence filed by the AESO in another proceeding, in which the AESO stated that "rates STS (Supply Transmission Service) and DTS (Demand Transmission Service) are considered 'firm' services and relate to supply and load present within Alberta."¹⁶ BHE submitted that this supports its position that firm transmission service is offered in Alberta, and that the removal of R1.1.4 is therefore technically deficient and not in the public interest.

30. The AESO characterized BHE's position as a "misguided analysis." It stated that it has modelled and will continue to model Rate DTS in its transmission planning, noting that R1.1.5, within the same section as R1.1.4, requires system models to represent "[r]esources (supply or demand side) required for load," which the AESO submitted includes Rate DTS. The AESO submitted that the removal of R1.1.4 does not alter its modelling processes, and that any similarities that exist between firm transmission service and Rate DTS do not demonstrate a technical deficiency or inconsistency with the public interest.¹⁷ The Commission accepts the AESO's evidence on this matter and considers that the AESO remains fully obligated to plan for all load, including Rate DTS, under the proposed standard.

31. BHE argued that Section 16.2(1) of the *Transmission Regulation* constitutes a "known commitment for interchange" within the meaning of NERC requirement R1.1.4. BHE submitted that, because the AESO is required by statute to "make arrangements to procure ancillary services in amounts sufficient to support import flows at or near 300 MW [megawatt] on the Montana-Alberta Tie Line," this obligation is precisely the kind of legislatively mandated, regionally specific commitment that R1.1.4 was intended to capture.

32. The Commission does not accept this argument. Whatever transmission planning requirements Section 16.2(1) may carry, the obligation it imposes is to arrange ancillary services to support potential import flows on MATL, not to commit to specific interchange volumes or transactions. The AESO noted that the effect of those procured services will be reflected in system modelling, but an obligation to arrange services that enable interchange is not the same as a commitment to interchange flows of the kind contemplated by R1.1.4. Accordingly, the

¹⁴ Exhibit 30139-X0072, 2025-12-19 AESO Reply Evidence, PDF page 7, paragraph 23.

¹⁵ Exhibit 30139-X0061, Written Evidence of BHE Canada Limited, PDF page 17, paragraph 37.

¹⁶ Exhibit 30139-X0079, Written Argument of BHE Canada (Proceeding 30139), PDF page 22, paragraph 66.

¹⁷ Exhibit 30139-X0080, AESO Written Argument 2026-01-30, PDF page 21, paragraphs 73-74.

Commission does not consider Section 16.2(1) to bear on the assessment of the removal of R1.1.4.

33. The Commission also accepts the AESO's position that the removal of the AESO's obligation to plan for known commitments for interchange, as contemplated in R1.1.4, does not eliminate the AESO's obligations to plan for imports and exports. Those obligations are legislative requirements and remain operative regardless of whether they are expressly restated in a reliability standard.

34. Section 10(1) of the *Transmission Regulation* requires the AESO to prepare and maintain a long-term transmission system plan that projects, among other things, forecast load including exports of electricity, the anticipated generation capability including imports of electricity, the transmission facilities required to meet those needs in a timely and efficient way, and the transmission facilities required to provide for efficient and reliable access to jurisdictions outside Alberta. These statutory obligations provide a foundation for interchange planning that is not diminished by the omission of R1.1.4 from the reliability standard. The Commission therefore disagrees with BHE that removing R1.1.4 creates a gap in the AESO's planning obligations. Section 10(1) of the *Transmission Regulation* is sufficient on its own to ground those obligations, independently of R1.1.4 and independently of Section 16.2(1). BHE has not demonstrated that the removal of R1.1.4 is technically deficient or not in the public interest.

5.2 The Alberta Electric System Operator's inertia modelling practices

35. BHE argued that the AESO models inertia flows only to "reliably accommodated" levels, and that this practice is inherently backward-looking because it relies on post-curtailement data as a modelling input. BHE submitted that this approach results in a systematic underestimation of import and export volumes, will fail to identify the reinforcement required to maintain system capability, and will permit the erosion of inertia capability over time.¹⁸

36. The Commission does not agree with this characterization of the AESO's planning methodology. It is the Commission's understanding that the AESO plans the transmission system through a process that begins with the Long-Term Outlook, in which the AESO develops forecasts of future load, resource additions and retirements, storage buildout, and inertia operation across a range of assumptions and scenarios. Those forecasts are then used as inputs to the AESO's Long-Term Transmission Plan, where the AESO conducts studies to identify issues on the projected future system. It is these studies that drive the AESO's identification of required transmission reinforcements.¹⁹ Within this framework, the AESO applies a range of inertia assumptions to its studies, and this has been the AESO's consistent practice since at least the 2012 Long-Term Transmission Plan.²⁰ The AESO's 2024 generation forecast methodology continued to apply a range of assumptions and for certain long-term outlook scenarios, the AESO adjusts system operating limits to represent potential increases in inertia capacity. The AESO has further confirmed that, in response to recent amendments to sections 16 and 16.2 of the *Transmission Regulation*, it is currently incorporating scenarios into its modelling practice that include import flows up to the full path rating of the inertias.²¹

¹⁸ Exhibit 30139-X0061, Written Evidence of BHE Canada Limited, PDF page 13, paragraph 32.

¹⁹ Exhibit 30139-X0063, David Angell Written Evidence, PDF pages 11-12, paragraphs 27-29.

²⁰ Exhibit 30139-X0072, 2025-12-19 AESO Reply Evidence, PDF page 7, paragraphs 25-26.

²¹ Exhibit 30139-X0072, 2025-12-19 AESO Reply Evidence, PDF pages 8-9, paragraphs 26-31.

37. The Commission understands that the AESO's determination of what flows can be "reliably accommodated" uses both import and export offers and post-curtailment transfer data as inputs, and that a transmission reliability margin is applied below the physical path rating.²² The Commission accepts that a transmission reliability margin is a necessary reliability consideration intended to account for uncertainty in long-term system conditions, and that modelling without such a margin would itself be inconsistent with reliability planning.

38. BHE's characterization that the AESO treats current reliably accommodated levels as a ceiling is not supported by the record. The range of intertie assumptions applied in the AESO's studies, the system operating limit adjustments made in specific long-term scenarios, and the AESO's ongoing incorporation of full-path-rating scenarios in response to the amendments to the *Transmission Regulation* collectively demonstrate a methodology that is capable of identifying the transmission facilities required to support greater interchange flows.

39. The Commission therefore finds that BHE has not established that the AESO's interchange modelling practice falls short of its legislative obligations, constitutes a technical deficiency in the proposed standard, or is not in the public interest.

5.3 ISO Rule 503.21 as a replacement for MOD-032

40. BHE has not satisfied the Commission that the AESO's reliance on ISO Rule 503.21 instead of a formal MOD-032 equivalent reliability standard renders TPL-001-AB-5.1 technically deficient or not in the public interest.

41. MOD-032 establishes requirements for who must provide power system modelling data, what data must be provided, and at what frequency, to allow system planners to build planning models. ISO Rule 503.21 requires facility owners to submit, update and correct power system modelling data to the AESO on defined timelines so the AESO can accurately model the transmission system.

42. The Commission acknowledges that ISO Rule 503.21 and a formal MOD-032-based reliability standard are not identical instruments, and that there are meaningful differences in the data and modelling requirements each establishes. However, BHE has not demonstrated that the absence of a formal MOD-032-equivalent results in a technical deficiency. The Commission is satisfied that ISO Rule 503.21 adequately addresses the core data submission and maintenance obligations served by MOD-032, in the absence of a corresponding Alberta reliability standard.

43. As previously noted, BHE argued that the AESO's consultation for the proposed updates to Alberta's TPL and SOL reliability standards was inadequate because it did not encompass the adoption of MOD-032. The Commission is not persuaded by this argument. The scope of the AESO's consultation included the reliability standards the AESO proposed to adopt or retire in these applications. Addressing MOD-032 through a separate future initiative does not render the consultation for the present applications deficient. Further, the Commission notes that MOD-032 is included in the AESO's sync-up project and is currently proposed to have an effective date of 2030.²³

²² Exhibit 30139-X0072, 2025-12-19 AESO Reply Evidence, PDF page 8, paragraph 29.

²³ Exhibit 30139-X0045, Sept. 10 Technical Meeting Minutes, PDF page 2.

5.4 TPL-PLAN-AB-1 - implementation plan for TPL-001-AB-5.1

44. TPL-PLAN-AB-1 sets out the phased implementation timeline for TPL-001-AB-5.1. BHE argued that the 2034 end date is not in the public interest because NERC adopted equivalent standards over a decade ago and Alberta's phased timeline leaves the province's reliability framework lagging North American norms for yet another decade,²⁴ perpetuating existing reliability gaps.

45. The Commission finds that the phased timeline is reasonable given the genuine complexity of the new planning requirements, including the need for transmission facility owners to develop new studies, methodologies, compliance programs, acquire new equipment, and so on, to accommodate the adoption of TPL-001-AB-5.1. In fact, during the AESO's consultation, several potentially affected parties requested that the AESO extend its implementation timeline, leading the AESO to present the proposed timelines.

46. The Commission acknowledges the concern that Alberta's transmission planning standards have lagged NERC's for a significant period, and notes that the AESO previously indicated its intention to accelerate adoption where feasible. The Commission encourages the AESO to identify any opportunities to accelerate compliance with the new TPL requirements and to continue engaging stakeholders on implementation timelines through consultation. This observation does not affect the Commission's approval of TPL-PLAN-AB-1 as proposed.

6 TOP-001-AB-6

47. TOP-001-AB-6 governs the real-time operational obligations of transmission operators to maintain system reliability, comply with operating instructions, and monitor system operating limits and interconnection reliability operating limit (IROL) exceedances. The AESO's proposed Alberta reliability standard departs from the corresponding NERC standard (TOP-001-5) by removing or leaving blank five requirements: R12 (operating within IROLs), R13 (real-time assessments), R17, R23 and R24 (data exchange and operational authority).

48. BHE challenged the omission of these five requirements, arguing that they reduce the transparency and verifiability of the AESO's compliance with its real-time operating obligations, particularly with respect to IROL management and documented information exchange.

49. The AESO submitted that each of the five omitted requirements is already duplicated by existing Alberta reliability standards that are binding on the AESO, making their restatement in TOP-001-AB-6 redundant.²⁵ The AESO stated that retaining duplicative requirements would create administrative burden and potential confusion about which entity bears which obligation, without adding reliability value.²⁶

50. The Commission approves TOP-001-AB-6 and finds that BHE has not demonstrated that the omissions to TOP-001-AB-6 are technically deficient or not in the public interest. Where the AESO performs the roles of reliability coordinator, balancing authority, planning coordinator, and transmission planner, the Commission gives significant weight to the AESO's assessment of

²⁴ Exhibit 30139-X0061, Written Evidence of BHE Canada Limited, PDF pages 30-31, paragraph 77.

²⁵ Exhibit 30139-X0048.02, AESO Responses to BHE IRs, PDF page 4.

²⁶ Exhibit 30139-X0080, AESO Written Argument - 2026-01-30, PDF page 23, paragraph 85.

its functional roles. The AESO is the entity that performs these roles and is best positioned to identify where requirements designed for internal coordination serve no additional purpose within a single organization.

51. The Commission acknowledges that retaining duplicative requirements would not create a reliability risk, and has considered BHE's submission that the explicit inclusion of these requirements serves accountability and auditability functions and that their omissions are substantive rather than merely administrative. The Commission must balance regulatory clarity and avoidance of duplication with benefits of consistency in wording between NERC standards and the AESO reliability standards. In this case, the Commission accepts the AESO's position that it is not necessary to keep the duplicative requirements. BHE challenged the omission of the five requirements from the corresponding NERC standard on the basis that it creates a gap in the reliability framework such that the minimum NERC requirements are not being met.²⁷ The Commission disagrees, and is satisfied by the AESO's assertion that each omitted requirement is covered by a functionally equivalent obligation in existing Alberta reliability standards.

52. With respect to requirement R12, which prohibits operating outside an IROL for longer than the associated time value, the Commission is satisfied that the equivalent obligation is imposed on the AESO by requirement R3 of IRO-009-AB-2 (Reliability Coordinator Actions to Operate Within IROLs). IRO-009-AB-2 contains the same fundamental prohibition against operating outside IROLs beyond the applicable time threshold and binds the AESO in its capacity as reliability coordinator. The Commission finds that IRO-009-AB-2 is functionally equivalent to NERC R12 in the Alberta context and that no reliability gap arises from the omission of R12 from TOP-001-AB-6.

53. With respect to requirement R13, which requires transmission operators to perform a real-time assessment at least once every 30 minutes, the Commission accepts the AESO's evidence that this obligation is already imposed on the AESO by requirement R4 of IRO-008-AB-2, which explicitly states that the ISO must perform a real-time assessment at least once every 30 minutes. The Commission accepts the AESO's explanation that the term "transmission operator" in the NERC standard creates potential for confusion in the Alberta context. While the AESO directs the reliable operation of Alberta's transmission system, it does not itself operate transmission facilities, and responsibility for transmission operations is shared between the AESO and transmission facility owners in a manner that does not map precisely onto the NERC TOP functional category. The Commission is satisfied that the obligation to perform real-time assessments every 30 minutes is clearly imposed on the AESO by IRO-008-AB-2 R4, and that no gap in this requirement arises from its omission from TOP-001-AB-6.

54. With respect to requirements R17, R23 and R24, which relate to data exchange between functional entities, the Commission accepts the AESO's assertion that these obligations are functionally covered by requirements R1, R2, R3A/B and R4 of IRO-002-AB-5 (Reliability Coordinator Monitoring and Analysis). These NERC requirements were designed to mandate information sharing between separately identified functional entities (balancing authorities, reliability coordinators, and transmission operators) in a multi-entity environment. Because the AESO performs all these roles, the Commission accepts that requiring the AESO to formally document information sharing between its own internal functional groups through a

²⁷ Exhibit 30139-X0036, Statement of Intent to Participate and Notice of Objection – signed, PDF page 5.

reliability standard would not add value and would impose unnecessary administrative burden. The Commission finds that no reliability gap arises from the omission of R17, R23 and R24 from TOP-001-AB-6.

7 FAC-014-AB-3

55. FAC-014-AB-3 requires the ISO to establish and communicate SOLs and IROLs to relevant planning authorities and transmission operators. The AESO's proposed Alberta reliability standard omits two requirements from the corresponding NERC standard: R3 and R5.

56. Under the NERC standard, requirement R3 mandates that each transmission operator provide its established SOLs to its Reliability Coordinator. Requirement R5 mandates that each Reliability Coordinator provide specific information regarding established stability limits and IROLs to impacted transmission operators, generator owners, and transmission owners, at least once every 12 months for facilities critical to the derivation of an IROL.

57. The Commission approves FAC-014-AB-3. While BHE contested the omission of requirements R3 and R5 from the proposed standard, the Commission finds that BHE has not demonstrated that either omission renders FAC-014-AB-3 technically deficient or not in the public interest.

58. As noted above, the AESO performs multiple functions simultaneously in Alberta. Both R3 and R5 involve communication between functional entities. In the Alberta context, the effective result is certain communications are between the AESO and itself. BHE raised two specific objections with the removal of R3 and R5: (1) removing R3 would reduce the future auditability of the AESO's internal SOL practices by the Market Surveillance Administrator and its auditors;²⁸ and (2) removing parts of R5 creates a less stringent standard than the NERC equivalent.²⁹

59. With respect to requirement R3, the Commission accepts that this requirement would mandate the AESO to communicate SOLs to itself in its capacity as both transmission operator and reliability coordinator. Given the AESO's performance of both roles, the Commission considers there to be no reliability consequences from the omission of R3. In addition, the AESO's established practices regarding SOL-related communications are sufficient to preserve future auditability functions and ensure that no material reliability gap arises from the omission of R3 from FAC-014-AB-3. These practices include regular emails to transmission facility owners with facility-specific SOL information, the reliability coordinator portal for neighbouring jurisdiction coordination, and publicly available SOL methodology.³⁰

60. With respect to requirement R5, the Commission acknowledges BHE's assertion that other North American ISOs with multiple NERC functional roles continue to comply with requirements like R5, and that there is value in cross-jurisdictional consistency in the application of NERC standards. However, consistent with the Commission's findings in Section 6, this in

²⁸ Exhibit 30139-X0061, Written Evidence of BHE Canada Limited, PDF page 28, paragraph 68.

²⁹ Exhibit 30139-X0061, Written Evidence of BHE Canada Limited, PDF page 29, paragraph 70.

³⁰ Exhibit 30139-X0072, 2025-12-19 AESO Reply Evidence, PDF page 14, paragraph 63.

and of itself does not render FAC-014-AB-3 technically deficient or not in the public interest. The omission of R5 does not create a reliability gap.

61. Where the AESO has identified that requirements designed for internal communication serve no additional purpose within its structure, the Commission accepts the AESO's assessment that, in this case, their removal better reflects Alberta's regulatory framework.

62. The Commission is satisfied that, taken together with the AESO's statutory obligations to direct reliable system operations and the public availability of its SOL methodology, these existing practices provide reasonable assurance that the reliability outcomes contemplated by R5 will continue to be achieved under the proposed standard.

8 Decision

63. For the reasons set out above, the Commission approves applications 30139-A001 and 30139-A002. No interested person has satisfied the Commission that the AESO's recommendations are technically deficient or not in the public interest.

64. The Commission approves the adoption of the following 10 Alberta reliability standards, together with the 15 new definitions and three amended definitions set out in Application 30139-A001, effective January 1, 2028: FAC-003-AB-5, FAC-011-AB-4, FAC-014-AB-3, IRO-008-AB-3, PRC-002-AB-4, PRC-023-AB-6, PRC-026-AB-2, TOP-001-AB-6, TPL-001-AB-5.1 and TPL-PLAN-AB-1.³¹

65. The Commission also approves the retirement of the following 11 existing Alberta reliability standards as set out in Application 30139-A002, effective January 1, 2028: FAC-003-AB1-1, FAC-010-AB1-2.1, FAC-011-AB-2, FAC-014-AB1-2, IRO-008-AB-2, PRC-002-AB-2, PRC-023-AB-4, TPL-001-AB-0, TPL-002-AB1-0, TPL-003-AB-0 and TPL-004-AB-0.

Dated on May 11, 2026.

Alberta Utilities Commission

Renée Marx
Panel Chair

Cairns Price
Commission Member

³¹ Certain requirements of TPL-001-AB-5.1 are subject to phased effective dates extending to 2034, as set out in TPL-PLAN-AB-1.