



Province of Alberta

ELECTRIC UTILITIES ACT

TRANSMISSION REGULATION

Alberta Regulation 86/2007

With amendments up to and including Alberta Regulation 136/2019

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Office Consolidation

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Alberta Queen's Printer
Suite 700, Park Plaza
10611 - 98 Avenue
Edmonton, AB T5K 2P7
Phone: 780-427-4952
Fax: 780-452-0668

E-mail: qp@gov.ab.ca
Shop on-line at www.qp.alberta.ca

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(Consolidated up to 136/2019)

ALBERTA REGULATION 86/2007

Electric Utilities Act

TRANSMISSION REGULATION

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Interpretation

1(1) In this Regulation,

- (a) “abnormal operating conditions” includes conditions where transmission facilities are out of service, emergency conditions exist, construction or commissioning of transmission facilities occurs or

- transmission facility maintenance cannot be coordinated with generating unit outages;
- (b) “Act” means the *Electric Utilities Act*;
 - (c) “DFO” means the owner of an electric distribution system;
 - (c.1) “geographic separation” means the physical separation of transmission lines to the extent necessary to ensure the reliability of the transmission system;
 - (d) “intertie” means a transmission facility, including its associated components, that links one or more electric systems outside Alberta to one or more points on the interconnected electric system;
 - (e) “ISO” means the Independent System Operator as defined in the Act;
 - (f) “ISO members” means the members of the ISO appointed under section 8 of the Act;
 - (g) “ISO’s own administrative costs” means
 - (i) the transmission-related costs and expenses of the ISO respecting the administration, operation and management of the ISO,
 - (ii) the transmission-related costs and expenses of the ISO respecting reliability standards and reliability management systems, and
 - (iii) the transmission-related costs and expenses required to be paid, or otherwise appropriately paid, by the ISO, except for the following:
 - (A) costs for the provision of ancillary services;
 - (B) costs of transmission line losses;
 - (C) amounts payable under TFO transmission tariffs;
 - (h) repealed AR 153/2010 s2;
 - (i) “path rating” means the rating to transfer electric energy assigned to a transmission facility when it was placed in service and rated in accordance with reliability standards in effect at that time;

- (j) “reliability standards” means the reliability standards that apply in Alberta under section 19;
- (j.1) “renewable or low emission generation” means a generating unit that produces electric energy that is renewable or alternative energy as defined in section 1(1)(l) of the *Micro-Generation Regulation* (AR 27/2008);
- (k) “TFO” means the owner of a transmission facility;
- (l) “transmission system plan” means the transmission system plan under section 10.

(2) In this Regulation, the following words and phrases have the meaning given to them by the Act:

- (a) ancillary services;
- (a.1) repealed AR 136/2019 s2;
- (b) Commission;
- (b.1) critical transmission infrastructure;
- (c) customer;
- (d) dispatch;
- (e) electric distribution system;
- (f) electric energy;
- (g) electricity;
- (g.1) electricity market;
- (h) generating unit;
- (i) industrial system;
- (j) interconnected electric system;
- (k) ISO tariff;
- (l) and (m) repealed AR 136/2019 s2;
- (m.1) Market Surveillance Administrator;
- (m.2) Minister;
- (n) owner;

- (o) person;
- (p) rates;
- (q) system access service;
- (r) tariff;
- (s) terms and conditions;
- (t) transmission facility;
- (u) transmission system.

(3) Repealed AR 136/2019 s2.

AR 86/2007 s1;255/2007;153/2010;114/2018;242/2018;
136/2019

Part 1

ISO's Consultation Obligations and Additional Duties

Consultation with electricity market participants generally

2(1) Subject to subsection (2), if the ISO decides to engage in consultation with electricity market participants, the ISO may do any of the following:

- (a) give notice of the matters to be the subject of consultation;
- (b) give notice of the purpose of the consultation;
- (c) give notice of the nature of the consultation process, including
 - (i) the manner of obtaining the views of electricity market participants,
 - (ii) the manner in which electricity market participants will become aware or be made aware of the views expressed by other electricity market participants, and
 - (iii) describing what opportunity electricity market participants will have to respond to the views expressed by other electricity market participants;
- (d) explain the manner in which the ISO will demonstrate that it has considered the views of electricity market participants;

- (e) prepare a document explaining the outcome of the consultation.

(2) When this Regulation requires the ISO to consult with electricity market participants, the ISO may have regard for subsection (1) but may consult with those electricity market participants the ISO is required to consult with in any manner that the ISO considers appropriate.

AR 86/2007 s2;136/2019

Consultation with electricity market participants on transmission system plan

2.1 The ISO must, in preparing or updating the transmission system plan under section 10, consult with those electricity market participants that the ISO considers are likely to be directly affected by the transmission system plan.

AR 153/2010 s3;136/2019

Consultation with electricity market participants on particular matters

3(1) The ISO must consult with those electricity market participants that the ISO considers are likely to be directly affected by

- (a) repealed AR 175/2014 s2.
- (b) the approval by ISO members of the ISO's own administrative costs, costs for provision of ancillary services or the costs of transmission line losses.

(2) The ISO must, not later than one year after this Regulation comes into force, make rules or establish practices respecting the approval referred to in subsection (1)(b).

AR 86/2007 s3;175/2014;136/2019

Consultation with electricity market participants on dispute resolution processes

4(1) The ISO must consult with those electricity market participants that the ISO considers

- (a) are likely to be directly affected by dispute resolution practices and procedures of the ISO, including the resolution of disputes arising under or in respect of ISO rules and standards, and
- (b) are persons who have a direct interest in the appointment of persons or entities to assist in the resolution of or to resolve disputes.

(2) Nothing in this section or in the ISO rules affects the right of a person to make a complaint to the Commission under section 25 of the Act.

(3) The ISO must, not later than one year after this Regulation comes into force,

- (a) complete the consultation required by subsection (1), and
- (b) make rules respecting dispute resolution practices and procedures described in subsection (1).

AR 86/2007 s4;255/2007;136/2019

Consultation with electricity market participants on critical transmission infrastructure milestones

4.1(1) The ISO must consult on the development of milestones with those electricity market participants that the ISO considers are likely to be directly affected by the milestones related to critical transmission infrastructure, referred to in section 41.4 of the Act, that the ISO will use to determine the timing of

- (a) the expansion of the terminals referred to in section 1(1)(a) and (b) of the Schedule to the Act, and
- (b) the development of the transmission facilities referred to in section 4(b) and (c) of the Schedule to the Act.

(2) After the ISO completes the consultation under subsection (1), the ISO must specify and make available to the public the milestones that apply to the critical transmission infrastructure referred to in subsection (1).

AR 153/2010 s4;136/2019

Standards and standards committees

5(1) The ISO may make standards, having common application, respecting either or both of the following:

- (a) transmission facilities or interconnection to transmission facilities, or both, including
 - (i) maintenance standards and criteria, and
 - (ii) performance standards

that apply with respect to a category or type of transmission facility;

- (b) the operation and security of transmission facilities, including

- (i) emergency and security standards and procedures,
- (ii) reciprocal restoration agreements,
- (iii) policies on sharing spares,
- (iv) a common spares policy, and
- (v) respecting issues of security and public safety.

(2) The ISO must establish one or more committees to advise the ISO in addressing the ISO's need for standards or rules respecting the matters referred to in subsection (1).

(3) Every committee established under this section must include

- (a) a representative of each TFO, and
- (b) a representative of the Commission if the Commission nominates a representative to that committee.

(4) If the ISO considers that a proposed standard or rule may be directly relevant to

- (a) DFOs,
- (b) owners of generating units,
- (c) customers who are industrial systems, or
- (d) persons who have made an arrangement under section 101(2) of the Act,

the ISO must include on the committee established under this section one or more representatives from the category of persons directly affected or must consult with those representatives in another manner the ISO considers appropriate.

(5) The ISO must, not later than one year after this Regulation comes into force,

- (a) complete the consultation for the purpose of establishing committees under this section, and
- (b) establish one or more committees under this section.

(6) This section does not apply to reliability standards.

AR 86/2007 s5;255/2007;153/2010

ISO business practices and performance targets

6(1) The ISO must establish and make available to the public

- (a) practices for the efficient and effective processing and making decisions about system access service applications, and
 - (b) performance targets and timeframes with respect to processing and making decisions about system access service applications.
- (2) The ISO must periodically make available to the public reports on meeting the performance targets and timeframes established under subsection (1).
- (3) The ISO must establish the practices, performance targets and timeframes described in subsection (1) not later than one year after this Regulation comes into force.

Rules for standards, practices, policy, procedures, criteria and processes

7(1) The ISO may make rules respecting any standard, practice, policy, procedure, criteria or process referred to in this Regulation, or may adopt any standard, practice, policy, procedure, criteria or process as a rule.

(2) Subsection (1) does not apply to reliability standards.

AR 86/2007 s7;153/2010

Part 2 Transmission System Planning

Transmission planning - forecasting need

8 In forecasting the needs of Alberta under section 33(1) of the Act, the ISO

- (a) must anticipate future demand for electricity, generation capability and appropriate reserves required to meet the forecast load so that transmission facilities can be planned to be available in a timely manner to accommodate the forecast load and new generation capability,
- (b) must make assumptions about future load growth, the timing and location of future generation additions, including areas of renewable or low emission generation, and other related assumptions to support transmission system planning,
- (c) must make an assessment of the transmission facilities required to provide for the efficient and reliable access to jurisdictions outside Alberta, and

- (d) may, if the ISO considers it necessary to do so, make an assessment of the contribution of a proposed transmission facility to any of the following:
 - (i) improving transmission system reliability;
 - (ii) a robust, competitive electricity market;
 - (iii) improving transmission system efficiency;
 - (iv) improving operational flexibility;
 - (v) maintaining options for long term development of the transmission system.

AR 86/2007 s8;255/2007;153/2010;114/2018;136/2019

9 Repealed AR 153/2010 s8.

Transmission system plan

10(1) As part of its duties under sections 17 and 33(1) of the Act, the ISO must

- (a) prepare and maintain a transmission system plan that projects, for at least the next 20 years,
 - (i) the forecast load on the interconnected electric system, including exports of electricity,
 - (ii) the anticipated generation capability, including appropriate reserves and imports of electricity required to meet the forecast load,
 - (iii) the timing and location of future generation additions, including areas of renewable or low emission generation,
 - (iv) the transmission facilities required to meet the forecast load, imports and exports of electricity and anticipated generation capability, including appropriate reserves and facilities to serve areas of renewable or low emission generation, in a timely and efficient way,
 - (v) the transmission facilities required to provide for the efficient and reliable access to jurisdictions outside Alberta, and
 - (vi) other matters related to the items described in subclauses (i) to (v) that the ISO considers appropriate,

- (b) update the transmission system plan periodically as required, but at least every 2 years, beginning June 1, 2009, including updating the plan to restore the inerties referred to in section 16, and
 - (c) make the transmission plan, including the assumptions and supporting data on which the plan is based, and the updates made to the plan, available to the public, and file copies of them with the Commission and the Minister for information.
- (2) The transmission system plan must
- (a) identify the transmission facility projects the ISO proposes to initiate by a needs identification document or a recommendation under section 10.1(1) within 5 years of the date of the plan and within 5 years of each update of the plan, and
 - (b) provide an anticipated implementation schedule for each transmission facility project identified.

AR 86/2007 s10;255/2007;153/2010;114/2018

10.1 Repealed AR 175/2014 s3.

Needs identification document

11(1) When the ISO prepares a needs identification document under section 34(1) of the Act, the ISO may

- (a) rely on the forecasts referred to in the transmission system plan, and
 - (b) indicate how the needs identification document relates to the transmission system plan.
- (2) The ISO may include in a single needs identification document a description of the need for more than one transmission facility.
- (3) In addition to the requirements set out in section 34(1) of the Act, the needs identification document must describe the timing and nature of the need, constraint or condition affecting or that will affect the operation, efficiency and reliability of the transmission system, including the following:
- (a) an assessment of current transmission system capability;
 - (b) the planning criteria used for the assessment of transmission system capability;

- (c) a forecast for at least 20 years of the load on the interconnected electric system;
- (d) a forecast for at least 20 years of generation capability and appropriate reserves required to meet the forecast load;
- (e) the studies and analysis performed in identifying the timing and nature of the need affecting or that will affect the identified constraint or condition;
- (f) the options considered for alleviating the constraint or condition;
- (g) the technical and economic comparison of the options considered, including the following:
 - (i) the impact on generation must-run requirements described in section 30(2)(a)(ii) of the Act;
 - (ii) how the options relate to the transmission system plan prepared by the ISO;
 - (iii) the evaluation of operational efficiency and reliability and the improvements provided by each option;
 - (iv) an evaluation of each option with respect to reliability standards and the planning criteria used for the assessment of transmission system capability;
 - (v) the proposed transmission substation and line configurations for each option;
 - (vi) the evaluation of factors respecting implementation of each option, including the timing and risks during construction;
 - (vii) environmental and other considerations;
- (h) the ISO's recommendation of a preferred option, including
 - (i) the rationale for selecting the option, and
 - (ii) the implementation schedule for the option;
- (i) if appropriate,
 - (i) a description of any operations preparatory to construction of a transmission facility, including engineering, purchase of materials, purchase of land or options to purchase land for future use or acquire a

right or interest in land for future use as a right of way, as may be necessary, and

- (ii) a description of the rationale, including the assumptions and supporting data on which the rationale is based, supporting the nature of the preparatory operations and estimating the cost of the operations referred to in subclause (i).

(4) If the ISO's preferred option under subsection (3)(h) is to construct a transmission facility at a future date, the ISO must

- (a) be reasonably certain that, in the future, a transmission facility is needed, and for the purpose of determining the certainty of the need, the ISO may specify milestones, including
 - (i) load growth,
 - (ii) generation addition,
 - (iii) commitments by the prospective owners of generating units to construct a unit,
 - (iv) the receipt of payment of local interconnection costs under Part 5,
 - (v) the issue of permits or approvals, or meeting other legal requirements, for the construction of a generating unit, and
 - (vi) any other indicators prescribed by the ISO determining the certainty of the need for the construction of a transmission facility,

and

- (b) identify the process by which the ISO will monitor and determine whether the milestones identified under clause (a) are met.

(5) When the milestones described in accordance with subsection (4)(a) are met, in full or in part, the ISO may make a direction to a TFO under section 35(1)(a) of the Act.

(5.1) Where the Commission considers it appropriate to do so, the Commission may omit any requirement respecting a needs identification document that is provided for in this Regulation or modify how any such requirement applies, in respect of an abbreviated needs identification document.

(6) Repealed AR 175/2014 s4.

AR 86/2007 s11;153/2010;175/2014;114/2018

Needs identification document not required

11.1 Despite section 34(1) of the Act, a needs identification document is not required for those proposals described

- (a) in a rule made by the Commission that indicates a needs identification document is not required for those proposals, or
- (b) in a rule made or practice established by the ISO under section 11.2 for an abbreviated needs approval process.

AR 242/2018 s3

Abbreviated needs approval process

11.2(1) The ISO must make rules or establish practices for an abbreviated needs approval process for

- (a) each system access service interconnection, and
- (b) each transmission facility project of a nature, size and cost determined by the ISO rules.

(2) In making rules or establishing practices under subsection (1), the ISO

- (a) must consult with the Commission,
- (b) must comply with any Commission directives or orders respecting an abbreviated needs approval process and the nature, size and cost of an interconnection or project referred to in subsection (1), and
- (c) may, where the ISO considers it appropriate to do so, omit any requirement respecting a needs identification document that is provided for in this Regulation or modify how any such requirement applies in respect of an abbreviated needs approval process.

(3) The ISO and the Commission must each periodically review the nature, size and cost provisions of the rules made under this section.

(4) Disputes respecting decisions made by the ISO resulting from the abbreviated needs approval process may be submitted to the Commission for determination.

AR 242/2018 s3

Consultation with electricity market participants on particular matters

11.3 The ISO must consult with those electricity market participants that the ISO considers are likely to be directly affected by rules made or practices established under section 11.2.

AR 242/2018 s3;136/2019

12 Repealed AR 175/2014 s5.

Delegation of responsibility

13(1) Under section 9(2) of the Act, the ISO may, by agreement with a TFO or a DFO, delegate the preparation of any or all of

- (a) the transmission system plan, or any aspect of it, or
- (b) repealed AR 153/2010 s11,
- (c) a needs identification document, or any aspect of it,

to one or more TFOs or DFOs, subject to any conditions that the ISO considers appropriate, but the ISO is responsible for reviewing and approving any plan or document prepared under the delegation.

(2) After consultation with the Commission, electricity market participants, TFOs and DFOs, the ISO must establish a practice to determine

- (a) the extent to which the preparation of the transmission system plan or a needs identification document may be delegated under subsection (1),
- (b) how and to whom a delegation may be made, and
- (c) the terms and conditions that may be included in a delegation agreement.

(3) The ISO must, not later than one year after this Regulation comes into force,

- (a) complete the consultation required by this section, and
- (b) establish the practice required by this section.

AR 86/2007 s13;255/2007;153/2010;136/2019

Assistance to the ISO

14(1) As part of the duties of a TFO under section 39 of the Act, the TFO must, as directed by the ISO, assist the ISO in

- (a) preparing and updating forecasts,

- (b) preparing, maintaining and updating the transmission system plan, and
 - (c) preparing and updating needs identification documents.
- (2) In addition to the duties of a DFO under the Act, the DFO must, as directed by the ISO, assist the ISO in
- (a) preparing and updating forecasts,
 - (b) preparing, maintaining and updating the transmission system plan,
 - (c) evaluating the relative merits of transmission and distribution options, and
 - (d) preparing and updating needs identification documents.
- (3) In providing assistance to the ISO, the TFO and DFO must, in accordance with the directions of the ISO, respect the confidentiality of information of electricity market participants.

AR 86/2007 s14;153/2010;136/2019

Part 3

Transmission System Criteria and Reliability Standards

Matters taken into account

- 15(1)** In making rules under section 20 of the Act, and in exercising its duties under sections 17 and 33(1) of the Act, the ISO must
- (a) plan a transmission system that satisfies reliability standards,
 - (b) ensure that transmission facilities adhere to reliability standards,
 - (c) monitor and ensure overall reliability of the interconnected electric system,
 - (d) comply with directives of the Commission,
 - (e) taking into consideration the characteristics and expected availability of generating units, plan a transmission system that
 - (i) is sufficiently robust so that 100% of the time, transmission of all anticipated in-merit electric energy referred to in section 17(c) of the Act can

occur when all transmission facilities are in service,
and

(ii) is adequate so that, on an annual basis, and at least 95% of the time, transmission of all anticipated in-merit electric energy referred to in section 17(c) of the Act can occur when operating under abnormal operating conditions,

(f) make arrangements for the expansion or enhancement of the transmission system so that, under normal operating conditions, all anticipated in-merit electricity referred to in clause (e)(i) and (ii) can be dispatched without constraint, and

(g) make rules respecting the preparation of needs identification documents for, and the planning and processing of, enhancements or upgrades to transmission facilities that existed on August 12, 2004 for the purpose of providing transmission capability to import or export electricity to or from Alberta in excess of the path ratings that existed on August 12, 2004 for those transmission facilities.

(2) In planning and arranging for enhancements or upgrades to the transmission system, the ISO may make or provide for specific and limited exceptions to the matters described in subsection (1)(e) and (f) and in section 16(1), or any of them, and if it does so, must

(a) file the exceptions with the Commission for approval, and

(b) specify the periods of time the exceptions apply.

(3) In considering the design and planning of the transmission system, the ISO may make or provide for specific and limited exceptions to the requirements of subsection (1) and propose a non-wires solution

(a) in areas where there is limited potential for growth of load, and the cost of the non-wires solution is materially less than the life-cycle cost of the transmission wires solution, compared over an equivalent study period, or

- (b) if the non-wires solution is required to ensure reliable service due to the shorter lead time of the non-wires solution, for a specified limited period of time.

AR 86/2007 s15;255/2007;153/2010;114/2018

Requirement for siting transmission lines

15.1(1) In preparing plans and making arrangements for new transmission facilities or for enhancements or upgrades to existing transmission facilities, the ISO must take into consideration geographic separation for the purposes of ensuring reliability of the transmission system.

(2) When considering the location of new transmission facilities or of enhancements or upgrades to existing transmission facilities, the ISO must consider

- (a) wires solutions that reduce or mitigate the right of way, corridor or other route required, and
- (b) maximizing the efficient use of rights of way, corridors or other routes that already contain or provide for utility or energy infrastructure.

(3) The ISO must consider the measures described in subsections (1) and (2) notwithstanding that those measures may result in additional costs.

(4) In subsection (2)(a), “wires solutions” includes, without limitation,

- (a) providing new transmission facilities that have higher ratings in combination with the salvage of transmission facilities that have lower ratings, or
- (b) providing staged transmission capability increases that reduce the need to access rights of way for subsequent transmission capability increases.

AR 255/2007 s7;114/2018

Restoring interties existing on August 12, 2004 to their path rating

16(1) In making rules under section 20 of the Act, and in exercising its duties under section 17 of the Act, the ISO must prepare a plan and make arrangements to restore each intertie that existed on August 12, 2004 to, or near to, its path rating.

(2) The plan to restore interties to their path ratings must specify how the ISO intends to restore and maintain each intertie to, or near

to, its path rating without the mandatory operation of generating units.

(3) The plan to restore and maintain interties must be incorporated into and form part of the transmission system plan as soon as practicable.

(4) This section shall not be interpreted as meaning that priority should be given to interties that existed on August 12, 2004 over interties existing after that date in respect of the allocation of available transfer capability.

AR 86/2007 s16;153/2010

Managing transmission constraints

17 The ISO must make rules and establish practices respecting the operation of the transmission system and the management of transmission constraints that may occur from time to time.

Generating unit emergency operating requirements

18(1) The ISO must, not later than one year after this Regulation comes into force, make rules respecting directions it may give to the owner of a generating unit that is not operating or scheduled to operate for any reason, including as a result of a planned or forced outage, requiring that the generating unit operate, exchange electric energy or provide ancillary services, or be made available to operate, exchange electric energy or provide ancillary services,

- (a) during abnormal operating conditions, or
- (b) if the ISO determines that there is an immediate or unexpected need on a short term basis for services provided by a generating unit to maintain a level of generation supply that provides Albertans with a level of service that is safe, adequate and reliable.

(2) The ISO must, not later than one year after this Regulation comes into force, make rules to implement a load curtailment priority plan which, in the event of a generation supply shortfall, will provide for the interruption of service to customers in a priority ranking.

(3) Before the ISO makes or changes the rules under subsections (1) and (2), the ISO must consult with those electricity market participants that it considers are likely to be directly affected by the rules.

(4) The owner of a generating unit must comply with a direction from the ISO under subsection (1) unless the owner gives written notice to the ISO, giving reasons, that

- (a) a real and substantial risk of damage to its generating unit could result if the direction were complied with,
- (b) a real and substantial risk to the safety of its employees or the public could result if the direction were complied with, or
- (c) a real and substantial risk of undue injury to the environment could result if the direction were complied with.

AR 86/2007 s18;255/2007;136/2019

Reliability standards

19(1) Subject to this section, the following are the reliability standards that apply in Alberta:

- (a) the reliability standards, agreements, criteria and directives of
 - (i) the Western Electric Coordinating Council or its successor organization,
 - (ii) the North American Electric Reliability Council or its successor organization, or
 - (iii) any entity similar to an entity referred to in subclause (i) or (ii) that is recognized by the ISO,

to the extent that those reliability standards, agreements, criteria and directives are adopted by the ISO in accordance with subsections (4) and (5);
- (b) any other reliability standards that are made or adopted by the ISO in accordance with subsections (4) and (5) to amend, supplement or replace the reliability standards, agreements, criteria and directives referred to in clause (a).

(2) The following are the reliability standards that apply in Alberta if the Minister recognizes an Electric Reliability Organization under section 20:

- (a) the reliability standards, agreements, criteria and directives of the Electric Reliability Organization or its successor organization, to the extent that those reliability standards, agreements, criteria and directives are adopted by the ISO in accordance with subsections (4) and (5);
- (b) any other reliability standards that are made or adopted by the ISO in accordance with subsections (4) and (5) to

amend, supplement or replace the reliability standards, agreements, criteria and directives referred to in clause (a).

(3) The reliability standards under subsection (2) replace the reliability standards under subsection (1).

(4) Before adopting or making reliability standards, agreements, criteria or directives under this section, the ISO must

- (a) consult with those electricity market participants that it considers are likely to be directly affected, and
- (b) forward the proposed reliability standards, agreements, criteria or directives to the Commission for review, with the ISO's recommendation that the Commission approve or reject them.

(5) Subject to subsection (6), the Commission must approve or refuse to approve the reliability standards, agreements, criteria or directives, and must inform the ISO of its decision.

(6) The Commission must follow the recommendation of the ISO 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.

AR 86/2007 s19;255/2007;136/2019

Recognition of Electric Reliability Organization

20(1) The Minister may enter into any arrangement or agreement or grant any approval that the Minister considers necessary or advisable for the purposes of granting recognition to an Electric Reliability Organization that is or has applied to be certified by the Federal Energy Regulatory Commission under the *Energy Policy Act of 2005* of the United States or to its successor organization.

(2) The Minister may issue any directive to the ISO or the Commission respecting the exercise of its authority that the Minister considers necessary or advisable respecting or for the purposes of implementing an arrangement or agreement entered into or an approval granted by the Minister under subsection (1).

(3) An arrangement or agreement entered into, an approval granted or a directive given by the Minister under this section

- (a) may be made subject to terms and conditions, and

- (b) may be amended, revoked or cancelled at any time by the Minister without prior notice.

(4) When entering into an arrangement or agreement or granting an approval under subsection (1) or issuing a directive under subsection (2), the Minister must

- (a) consider whether the arrangement, agreement, approval or directive is capable of applying in Alberta,
- (b) consider the impact of the arrangement, agreement, approval or directive on Alberta's competitive electricity market, and
- (c) ensure, to the extent reasonable, that any new or modified arrangement, agreement, approval or directive that will apply in Alberta will not require a material change in the framework for the electricity market.

AR 86/2007 s20;255/2007;114/2018;136/2019

Reliability standards adoption, publication and modification

21(1) The ISO must not, without the consent of the Commission,

- (a) enter into an arrangement or agreement under section 9(5) of the Act respecting reliability standards, or
- (b) amend or change an arrangement or agreement referred to in clause (a) except where the amendment or change is clearly of a routine operational or detailed technical nature.

(2) Arrangements and agreements entered into under section 9(5) of the Act and reliability standards developed, adopted or modified by the ISO pursuant to section 19 or 20 of this Regulation must be made available to the public except when the ISO considers it not to be in the public interest to do so, in which case an explanation for the non-disclosure must be provided.

(3) When the ISO participates in the development, adoption or modification of reliability standards, the ISO must

- (a) consider whether the standards are capable of applying in Alberta, and
- (b) ensure, to the extent reasonable, that any new or modified standard that will apply in Alberta will not require a material change in the framework for the electricity market.

AR 86/2007 s21;255/2007;114/2018;136/2019

Alberta autonomy

22(1) The ISO shall not, without the consent of the Minister, delegate any of its powers, duties, responsibilities or functions respecting reliability standards to a person outside Alberta or enter into any agreement or arrangement that has that effect.

(2) The ISO shall not

- (a) transfer any money outside of Alberta, or make a payment in Alberta that may result in the transfer outside of Alberta of any money, in respect of a fine, administrative penalty or other monetary sanction imposed on the ISO for non-compliance by it with a reliability standard, or
- (b) enter into any agreement or arrangement that requires or has the effect of requiring the ISO to do anything prohibited under clause (a).

(3) If any fine, administrative penalty or other monetary sanction is imposed on the ISO for non-compliance by it with a reliability standard, the money paid must be directed to the General Revenue Fund.

(4) The ISO may recover from an electricity market participant any money in respect of a fine, administrative penalty or other monetary sanction imposed on the ISO for non-compliance by it with a reliability standard if the ISO has paid the money in respect of the fine, administrative penalty or monetary sanction and can demonstrate that an electricity market participant was the cause of the non-compliance.

(5) Any dispute with respect to subsection (4) must be settled by the Commission.

AR 86/2007 s22;255/2007;153/2010;136/2019

Compliance with monitoring and reporting

23(1) The ISO must establish practices and procedures for monitoring compliance by electricity market participants with

- (a) ISO rules,
- (b) reliability standards, and
- (c) standards and rules made under section 5.

(2) The Market Surveillance Administrator must make available to the public annual reports respecting

- (a) compliance by the ISO, TFOs, DFOs and other electricity market participants with ISO rules, reliability standards and standards and rules made under section 5, and
- (b) any action taken by the Market Surveillance Administrator to enforce ISO rules, reliability standards and standards and rules made under section 5.

AR 86/2007 s23;255/2007;153/2010;136/2019

Forbearance

23.1(1) The Market Surveillance Administrator may decide to refrain, in whole or in part and conditionally or unconditionally, from the exercise of any power or the carrying out of any part of its mandate if the Market Surveillance Administrator finds as a question of fact that there are in place practices, processes, plans or any other measures sufficient to protect the safe, reliable and economic operation of the interconnected electric system.

(2) The Market Surveillance Administrator shall not refrain under subsection (1) if the Market Surveillance Administrator finds as a question of fact that to refrain would be likely to impair unduly the safe, reliable and economic operation of the interconnected electric system.

AR 153/2010 s16

Part 4 Transmission Facility Projects

General rules for constructing transmission facilities

24(1) Subject to subsections (2) and (3), when making rules under section 20 of the Act and in exercising its duties under section 17 of the Act, the ISO must

- (a) determine, on the basis of geographic areas under sections 28 and 29 of the *Hydro and Electric Energy Act*, who is eligible to apply for the construction or operation, or both, of transmission facilities in those areas after August 12, 2004, based on which TFO is operating in those areas, and
- (b) with respect to a transmission facility that existed on August 12, 2004, provide that the owner of that transmission facility, or any successor of the owner of that transmission facility, continues to be responsible for upgrades and enhancement to the transmission facility.

(2) The ISO may grant or provide for exceptions to subsection (1), including authorizing alternative arrangements or agreements between TFOs, if

- (a) those arrangements or agreements result in the safe, reliable and efficient operation of the transmission system, and
 - (b) those arrangements or agreements are filed with the Commission for information.
- (3) Subsection (1) does not apply in respect of
- (a) a transmission facility to which section 27 applies,
 - (b) critical transmission infrastructure in respect of which the Minister has made a determination under section 24.1(1) as it read at any time before September 22, 2014, if the determination was still in effect immediately before September 22, 2014,
 - (c) a transmission facility referred to in section 4 of the Schedule to the Act, or
 - (d) repealed AR 175/2014 s6,
 - (e) a proposal submitted to the ISO under section 5 of the *Transmission Deficiency Regulation* by an electricity market participant.

AR 86/2007 s24;255/2007;160/2009;153/2010;175/2014;
136/2019

Transitional - critical transmission infrastructure

24.1(1) Where critical transmission infrastructure is being constructed or operated, or both, on September 22, 2014 pursuant to a determination made by the Minister under this section as it read at any time before September 22, 2014, the determination continues in effect and subsections (2) and (3) continue to apply in respect of that critical transmission infrastructure.

(2) The ISO must have regard to a determination referred to in subsection (1) when carrying out the ISO's functions under the Act and regulations, including when giving a direction under section 41.3 of the Act.

(3) The Commission, when considering approval of the matters in section 142(1)(l)(iii)(B) and (C) of the Act, must have regard to a determination referred to in subsection (1).

(4) Repealed AR 175/2014 s7.

AR 160/2009 s3;288/2009;153/2010;175/2014

Competitive process to develop certain transmission facilities

24.2(1) For the purposes of this section, “competitive process” means a fair and open process that allows any qualified person, as determined by the ISO, to submit a proposal in respect of a transmission facility, including a financial bid, as the method to determine the person referred to in subsection (2).

(2) The ISO must develop a competitive process to determine the person who is eligible to apply for the construction and operation of the transmission facilities referred to in section 24(3)(a) and (c).

(3) Before the ISO implements a competitive process developed under subsection (2), the ISO must obtain the Commission’s approval of the competitive process.

(4) Where the Commission approves a competitive process developed under subsection (2), the Commission must consider any resulting arrangements, including any changes requiring the Commission’s approval or determination pursuant to section 24.3(3) or (4), as prudent.

(5) The competitive process developed under subsection (2) must not exclude

- (a) a TFO, whether or not the TFO has undertaken any work or provided any services to the ISO in respect of a proposed transmission facility, or
- (b) any other person that has undertaken any work or provided any services to the ISO in respect of a proposed transmission facility

unless the TFO or other person does not have the necessary qualifications to participate in the competitive process.

(6) Subject to subsection (7), the ISO may request, and a TFO or other person must provide, any records to the ISO that are necessary to develop and implement a competitive process.

(7) If there is a dispute between the ISO and a TFO or other person regarding whether a record is necessary for the purposes of the ISO as referred to in subsection (6), the matter must be determined by the Commission.

(8) A competitive process that is approved by the Commission may be used by the ISO for more than one transmission facility project.

AR 153/2010 s18;156/2012;175/2014

Resulting arrangements – changes or disputes

24.3(1) For the purposes of this section,

- (a) “eligible person” means the person determined to be eligible to apply in accordance with section 24.2(2);
- (b) “resulting arrangement” means a resulting arrangement referred to in section 24.2(4).

(2) The ISO and the eligible person may change a resulting arrangement, including the payment, schedule and other obligations set out in the resulting arrangement, if the change is allowed for by the terms of a resulting arrangement.

(3) The Commission’s approval must be obtained before the ISO and the eligible person make a change if in the opinion of the ISO

- (a) a material change to the resulting arrangement is required, and
- (b) the change may not be made under the terms of a resulting arrangement.

(4) If a dispute arises between the ISO and the eligible person regarding a resulting arrangement and cannot be resolved between them, the ISO and the eligible person must submit the dispute to the Commission for determination.

AR 156/2012 s3

Proposal for construction and temporary operation of a transmission facility

24.31(1) For the purposes of this section,

- (a) “incumbent TFO”, in respect of a transmission facility that is the subject of a proposal, means
 - (i) the person determined under
 - (A) section 24(1)(a),
 - (B) section 24.1(1) as it read at any time before September 22, 2014, or
 - (C) the process developed in accordance with section 24.2(2)

to be eligible to apply for the construction or operation, or both, as the case may be, of the transmission facility, or

- (ii) a person having responsibility under section 24(1)(b) in respect of the transmission facility;
 - (b) “proposal” means a proposal under this section;
 - (c) “successor” means a person who, at any time after ownership of a transmission facility that is the subject of a proposal is transferred by an electricity market participant to an incumbent TFO, acquires ownership of the property in respect of which the transmission facility was constructed to provide system access service.
- (2)** An electricity market participant may, in accordance with this section, submit a proposal to the ISO for the construction and temporary operation of a transmission facility.
- (3)** A proposal may be submitted under this section only
- (a) in respect of a radial transmission facility, unless the electricity market participant and incumbent TFO agree to a different configuration of transmission facility,
 - (b) if the transmission facility is proposed to be constructed by the electricity market participant to provide system access service solely to the electricity market participant, and
 - (c) if the transmission facility is proposed to be jointly operated by the electricity market participant and the incumbent TFO for a temporary period specified in the proposal.
- (4)** Subsection (3) applies whether the proposal
- (a) is submitted for the purposes of section 35(1)(b) of the Act to meet a need identified in a needs identification document, or
 - (b) is a proposal for which, pursuant to this Regulation, no needs identification document is required.
- (5)** Where the proposal is one for which no needs identification document is required, the ISO must approve or refuse to approve the proposal in the same manner as if it were acting under section 36(1) of the Act.
- (6)** Where the ISO approves the proposal, it may specify a time within which the electricity market participant and incumbent TFO must apply for a permit under the *Hydro and Electric Energy Act* to construct the transmission facility and a licence to jointly operate

the transmission facility for the temporary period referred to in subsection (3)(c).

(7) Where the ISO approves the proposal, the electricity market participant and incumbent TFO must,

- (a) before applying for any permit, licence or approval under the *Hydro and Electric Energy Act* to construct or operate the transmission facility, enter into a written agreement under which ownership of the transmission facility will transfer from the electricity market participant to the incumbent TFO on the expiry of the temporary period referred to in subsection (3)(c), and
- (b) before operating the transmission facility, enter into a written agreement under which they will jointly operate it.

(8) Despite a transfer of ownership of a transmission facility from the electricity market participant to the incumbent TFO, the electricity market participant and its successors, if any, remain responsible to pay the costs of any liability incurred by the incumbent TFO as a result of acts or omissions by the electricity market participant during design or construction of the transmission facility.

(9) Where

- (a) ownership of a transmission facility has transferred from the electricity market participant to the incumbent TFO, and
- (b) the incumbent TFO is unable to recover costs referred to in subsection (8) from the electricity market participant or its successor because of the insolvency of the electricity market participant or successor,

the Commission must, in making a decision respecting rates for the TFO, consider that the costs are prudent unless an interested party satisfies the Commission that those costs are not prudent.

AR 242/2018 s4;136/2019

DFO's approval of request for direct system access service

24.4(1) A DFO must, within 30 days after receiving a request from an electricity market participant for approval under section 101(2)(a) of the Act,

- (a) approve the request if the DFO determines that
 - (i) there would be no adverse effects to the electric distribution system,

- (ii) the existing electric distribution system cannot reasonably serve to connect the electricity market participant, and
- (iii) at the time of the request the DFO does not have plans for an expansion of the electric distribution system that could serve to connect the electricity market participant in an efficient manner,

or

- (b) deny the request if the DFO determines that any of the criteria in clause (a)(i), (ii) or (iii) are not met or approve the request with conditions if compliance with the conditions would ensure that the criteria in clause (a)(i), (ii) and (iii) will be met.

(2) If the DFO denies a request or approves the request with conditions, it must give the electricity market participant written notice of the decision, including the reasons for the denial or the imposition of the conditions.

(3) If a DFO submits a system access service request to the ISO on behalf of an electricity market participant, the DFO must provide to the electricity market participant any information it requests pertaining to the system access service request.

(4) If a dispute arises between the DFO and an electricity market participant involved in a request for approval under section 101(2)(a) of the Act, the DFO or the electricity market participant may submit the dispute to the Commission for determination.

AR 175/2014 s9;136/2019

Transmission facility project cost reporting

25(1) For those transmission facility projects that the ISO directs or may direct a TFO under section 35(1)(a) of the Act or a person under section 41.3 of the Act to submit for Commission approval, the ISO must make rules or establish practices respecting the preparation of cost estimates, project scope documents and schedule documents for projects to ensure that

- (a) cost estimates prepared by a TFO or other person under this section are reasonable for the purpose of making transmission system planning decisions,
- (b) cost estimates are prepared by a TFO or other person in a consistent manner and to an appropriate level of detail,

- (c) scope change, schedule change and cost variance reports are prepared and retained by the TFO in a consistent manner and to an appropriate level of detail, and
- (d) a project cost summary is prepared that identifies the original cost estimate, original scope and original schedule and a summary of any changes or cost variances that occurred.

(2) The ISO may satisfy itself that the cost estimates prepared by a TFO or other person under this section are reasonable, but in doing so may only examine issues that are relevant to the intended use of the cost estimates.

(3) Nothing in the ISO rules or practices relieves a TFO from the burden of proof required by section 121(4) of the Act to show that its tariff is just and reasonable.

(4) Nothing in this section, section 5 or the ISO rules or practices affects

- (a) the responsibility of the Commission to determine a TFO's or other person's prudence in managing its activities, or
- (b) the authority of the Commission to establish its own reporting requirements.

(5) In addition to its duties under section 17 of the Act, the ISO may do either or both of the following:

- (a) certify to the Commission that a cost was incurred to meet a need identified by the ISO or a direction of the ISO;
- (b) notify the Commission of any concern or issue the ISO has with respect to the costs of a transmission facility project referred to in subsection (1),

but the Commission must not require the ISO to make any statement with respect to a TFO's or other person's prudence in managing a transmission facility project.

(6) Within a reasonable period after rules are made under subsection (1), a TFO must apply to the Commission to make its tariff consistent with those rules.

(7) This section does not apply to transmission facilities to which the competitive process described in section 24.2 applies.

AR 86/2007 s25;255/2007;153/2010;175/2014

Approval of cost estimate

25.01(1) This section applies to a transmission facility or a class of transmission facilities identified in a rule made by the Commission under subsection (7), but does not apply to transmission facilities to which section 24.2 applies.

(2) Where construction of a transmission facility is proposed, the TFO must submit an estimate of the project costs to the Commission for approval.

(3) The cost estimate must be submitted by the TFO

- (a) unless clause (b) applies, within 180 days after the day the Commission issues a permit to the TFO under the *Hydro and Electric Energy Act* to construct the transmission facility, or
- (b) within a time period ordered by the Commission, which may be a longer or shorter period than that provided in clause (a).

(4) If the Commission finds the cost estimate submitted by the TFO is too high or too low, the Commission may approve an amount of costs that is higher or lower than that in the cost estimate.

(5) The TFO may, at any time after a cost estimate is approved but before construction of the transmission facility is completed, apply to the Commission to increase the approved cost estimate, and where such an application is made subsection (6) and any rules made under subsection (7) apply in respect of the application.

(6) In making a decision respecting rates for the TFO, the Commission must consider the actual project costs of the transmission facility to be prudent if the actual project costs are equal to or less than a cost estimate approved under this section.

(7) The Commission, for the purposes of this section,

- (a) must make rules identifying the transmission facilities or classes of transmission facilities to which this section applies, and
- (b) may make rules establishing factors for the Commission to consider in determining whether to approve a cost estimate under this section.

AR 242/2018 s5

Transmission Facility Cost Monitoring Committee

25.1 Despite any ISO rules or any practices established by the ISO respecting the preparation of cost estimates, project scope documents and schedule documents that may limit or restrict the distribution of records, the ISO or a TFO must provide the Transmission Facility Cost Monitoring Committee established by the Minister pursuant to section 7 of the *Government Organization Act* with access to records in accordance with an order made by the Minister.

AR 255/2007 s9;153/2010

ISO direction to TFO or other person

25.2 At any time after the ISO gives a direction to a TFO under section 35(1)(a) of the Act or a person under section 41.3 of the Act, the ISO may direct the TFO or other person to acquire equipment and materials, including related engineering services, whose lengthy delivery time may adversely affect the reliability of the transmission system.

AR 153/2010 s20

Competitive tenders

26(1) In making rules under section 20 of the Act, and in exercising its duties under section 17 of the Act, the ISO

- (a) must provide for the competitive tender of construction costs, including materials and equipment, for the construction of a transmission facility by a TFO or other person who is the applicant for construction of a transmission facility referred to in section 24(1) or 24.1, and
- (b) may exempt or provide for exemptions from the competitive tender when the circumstances warrant.

(2) When considering a tariff application by a TFO, the Commission must judge the prudence of the costs incurred under an exemption provided by or under the rules referred to in subsection (1).

(3) Within a reasonable period after rules are made under subsection (1), a TFO must apply to the Commission to make its tariff consistent with those rules.

AR 86/2007 s26;255/2007;153/2010

Intertie projects

27(1) This section applies to the following:

- (a) an intertie proposed to be constructed;

- (b) an upgrade or enhancement to an intertie that proposes, or would result in, an increase to the path rating of the intertie.

(2) When the ISO prepares a needs identification document under section 34(1) of the Act for an intertie described in subsection (1), the needs identification document must

- (a) contain the information required by section 11(3), unless the ISO determines that any of those matters are not required,
- (b) describe the extent to which the ISO will make use of the proposed intertie to provide system access service,
- (c) contain proposed agreements, arrangements, rates and terms and conditions for the ISO's use of the intertie, and
- (d) contain any other information that the ISO considers necessary in view of the nature of the proposed intertie.

(3) A person proposing an intertie to which this section applies must assist the ISO in preparing the needs identification document.

(4) The cost of planning, designing, constructing, operating and interconnecting an intertie to which this section applies must be paid by

- (a) the person proposing the intertie, and
- (b) other persons to the extent that they directly benefit from the intertie, based on the use described in the needs identification document approved by the Commission, and then only to the extent permitted by the ISO tariff.

(5) A person proposing an intertie to which this section applies, in accordance with the ISO rules, must

- (a) provide open access to electricity market participants by auction or other transparent process, and file the terms and conditions respecting open access with the Commission for information, and
- (b) provide that the intertie be available in an open and non-discriminatory manner, similar to the access available to other transmission facilities.

(6) The ISO must include in the ISO tariff, rates and terms and conditions that include costs for use of the interconnected electric system, appropriate for the class of service provided to persons who use the intertie referred to in this section for import or export of electricity to or from Alberta.

AR 86/2007 s27;255/2007;136/2019

Part 5

Local Interconnection Costs and Transmission Contribution Costs

Local interconnection costs

28(1) The ISO must include in the ISO tariff

- (a) local interconnection costs, as defined by the ISO, payable by an owner of a generating unit for connecting to the transmission system,
- (b) the terms and conditions, and
- (c) provisions for the recovery of local interconnection costs from owners of generating units.

(2) The ISO must make reasonable efforts to ensure that the interconnection of a generating unit to the transmission system is undertaken in a timely manner.

(3) The owner of a generating unit that interconnects with the transmission system, and who has paid local interconnection costs, may not prohibit interconnection or access to the interconnection facilities by other electricity market participants.

(4) If another person makes use of the facilities for which a local interconnection cost has been paid,

- (a) the cost of the use of those facilities by that other person or persons must be allocated to all users in accordance with the ISO tariff, and
- (b) the original local interconnection cost, or a portion of it, must be refunded to the person who paid it in accordance with the ISO tariff.

AR 86/2007 s28;136/2019

Generating unit owner's contribution

29(1) The ISO must include in the ISO tariff

- (a) the amount, determined under subsections (2) and (3), payable by an owner of a generating unit to the ISO, and

- (b) terms and conditions related to clause (a).

(2) The amount payable by owners of generating units is the sum of the following:

- (a) for upgrades to existing transmission facilities, a charge of \$10 000/MW;
- (b) a charge of not more than \$40 000/MW, as provided in the ISO tariff, payable by owners of generating units that locate in an area of the transmission system where generation exceeds load, and the amount of the charge is to be determined based on the location of the generating unit relative to load.

(3) A charge under subsection (2)(b) may be revised from time to time, but must

- (a) be stable and predictable,
- (b) be calculated in a simple and transparent manner,
- (c) be based on generating unit size,
- (d) vary based on the generation location relative to load in Alberta,
- (e) be determined and payable in accordance with the ISO rules and the ISO tariff, be paid before commencement of construction of the local interconnection facility and be paid once only for that specific location and generating unit, and
- (f) not affect charges determined and paid by owners of generating units or owners of prospective generating units before the revisions.

(4) The ISO tariff must include terms and conditions providing for the following:

- (a) the refund of money paid under this section, to the owner who paid it, over a period of not more than 10 years from the date the generating unit begins to generate electric energy for the purpose of exchange but not for the purpose of testing or commissioning the unit, subject to satisfactory operation of the generating unit determined under rules made under subsection (5), where satisfactory operation may vary by generation type;
- (b) forfeiture to the ISO of money paid under this section, or suspension of the refunds, if the generating unit is not operated satisfactorily;

- (c) the means and times at which the refunds are to be made;
 - (d) the prudent administration, management and investment of money held by the ISO under this section and for the accounting for those funds;
 - (e) the disbursement of money earned on investments.
- (5) The ISO must make rules to be used to assess the satisfactory performance of a generating unit by generating unit type.

Non-application of sections 28 and 29

30 Sections 28 and 29 do not apply to a generating unit connected to the transmission system before January 1, 2006 or to a generating unit that has a rated capacity of 1 MW or less.

AR 86/2007 s30;114/2018

Part 6 Transmission System Losses, Charges and Credits

Transmission system loss factors

31(1) The ISO must make rules to

- (a) reasonably recover the cost of transmission line losses on the interconnected electric system by establishing and maintaining loss factors
 - (i) for each generating unit,
 - (ii) for each export path or group of export paths, as those terms are defined in the ISO rules respecting line losses,
 - (iii) for each import path or group of import paths, as those terms are defined in the ISO rules respecting line losses, and
 - (iv) for any other opportunity service customer in respect of whom the ISO determines a loss factor is to apply, based on their respective locations and their respective contributions, if at all, to transmission line losses,
- (b) determine the anticipated transmission line losses for a specified period of time and determine the average transmission system loss factor for that specified period,

- (c) establish a means of determining, for each location on the transmission system, loss factors and associated charges and credits, which are anticipated to result in the reasonable recovery of the costs of transmission line losses,
- (d) provide a means by which, annually, a determination will be made of the difference between the anticipated transmission line losses and the actual transmission line losses, and
- (e) subject to section 33, provide a means through the application of a single calibration factor to adjust the amounts paid by the application of the loss factor described in clause (c) so that
 - (i) owners of generating units,
 - (ii) importers and the exporters of electricity, and
 - (iii) any other opportunity service customers referred to in clause (a)(iv),are charged or receive a credit so that they pay the actual cost of transmission line losses.

(2) In accordance with the rules made under subsection (1), the ISO must determine loss factors having regard to the following:

- (a) loss factors must apply for a period of at least one year but not more than 5 years, subject to clause (b);
- (b) a loss factor applied under clause (a) may not be changed during the period it applies unless, in the opinion of the ISO,
 - (i) a change has occurred to any type of facility, including generation, load or transmission facility, that is connected to, or is part of, the interconnected electric system, and
 - (ii) the change materially affects transmission line losses;
- (c) loss factors must be determined for each location on the transmission system as if no abnormal operating conditions exist;
- (d) the loss factor in each location must be representative of the impact on average system losses by each respective generating unit or group of generating units relative to load;

- (e) the loss factor must be one number at each location that does not vary, except as a result of revisions referred to in clause (b) or the reapplication of loss factors under clause (a);
- (f) subject to clause (g), after determining which loss factors result in a charge or credit, every loss factor must be adjusted by a common method in order to limit the loss factors as follows:
 - (i) loss factors associated with a charge must not exceed 2 times the average transmission system loss factor;
 - (ii) loss factors associated with a credit must not exceed one times the average transmission system loss factor;
- (g) on and after January 1, 2009, and in place of clause (f), after determining which loss factors result in a charge or credit, every loss factor must be adjusted by a common method in order to limit the loss factors as follows:
 - (i) the loss factors associated with a charge must not exceed 12%;
 - (ii) the loss factors associated with a credit must not exceed 12%.

(3) For greater certainty, abnormal operating conditions referred to in subsection (2)(c) do not include generation from transmission must-run generating units if the ISO includes those units in its transmission loss forecasts.

AR 86/2007 s31;255/2007;242/2018

Loss factors to be publicly available

32(1) The ISO must make rules with respect to the designation of loss factors in any place in Alberta where a generating unit is not located, and on request, determine a loss factor with respect to a generating unit that a person proposes to construct.

(2) Loss factors determined under section 31 and subsection (1) of this section must be made available to the public for each location on the transmission system.

Adjustment of loss factors

33(1) In accordance with the ISO rules, loss factors may be adjusted by a calibration factor to ensure that the actual cost of losses is reasonably recovered through charges and credits under the ISO tariff on an annual basis.

(2) If the actual cost of losses is over-recovered or under-recovered in one year, the over-recovery or under-recovery must be refunded or collected in the next year or subsequent years.

Recovery of transmission losses

34 In accordance with the ISO rules, the cost of transmission line losses must be reasonably recovered using the loss factors determined under section 35 or 36 as those loss factors are charged or credited to the persons referred to in section 31(1)(e) under the ISO tariff.

Determination of transmission loss factors until December 31, 2008

35(1) Up to and including December 31, 2008, the loss factors under this Part must be determined so that

- (a) the owner of a generating unit must pay location-based loss charges or receive credits, and
- (b) importers of electricity under a firm service arrangement must pay location-based loss charges or receive credits.

(2) A person receiving transmission service under an interruptible service arrangement for load, import or export must pay location-based loss charges or receive credits that recover the full cost of losses required to provide this service.

AR 86/2007 s35;255/2007

Determination of transmission loss factors on and after January 1, 2009

36 On and after January 1, 2009, the loss factors under this Part must be determined so that

- (a) the owner of a generating unit must pay location-based loss charges or receive credits,
- (b) importers of electricity must pay location-based loss charges or receive credits
 - (i) determined in the same manner as for generating units, and
 - (ii) determined at the point where the import path, referred to in section 31(1)(a)(iii), connects to the remainder of the interconnected electric system,
- (c) importers and exporters of electricity must pay transmission line loss charges representing the average

level of losses incurred in transporting electricity on an import path or export path referred to in section 31(1)(a)(ii) and (iii), and

- (d) a person that receives opportunity service where the ISO determines that a line loss factor applies under section 31(1)(a)(iv) must pay losses or receive credits that are determined in a similar manner as the losses and credits determined for owners of a generating unit.

AR 86/2007 s36;255/2007

Part 7 Commission Responsibilities

Application to Commission for preparatory operations

37(1) In anticipation of future expansions of the transmission system, the ISO may apply to the Commission for approval of any operations preparatory to construction of a transmission facility, including critical transmission infrastructure, at any time after the ISO has filed the transmission system plan or an update with the Commission and the Minister for information under section 10(1)(c) where that plan includes transmission facilities in respect of which the ISO determines preparatory operations are appropriate.

(2) An application under this section must contain the information set out in section 11(3)(i) and any other information the ISO considers appropriate or the Commission requests.

(3) When considering an application under this section, the Commission may, in addition to the factors set out in section 38, have regard for the costs and benefits that the Commission considers are likely to result from the proposed preparatory operations.

(4) An approval of an application under this section is not to be considered an approval of the need for the transmission facility or an approval to construct the transmission facility, and shall not be used for the purpose of an application to the Surface Rights Commission for the acquisition of an interest in land for a right of way.

AR 86/2007 s37;255/2007;153/2010

Applications to the Commission under section 34(1) of Act

38 When considering whether to approve a needs identification document under section 34(3) of the Act, the Commission must

- (a) have regard for the principle that it is in the public interest to foster

- (i) an efficient and competitive electricity market,
 - (ii) a transmission system that is flexible, reliable and efficient and preserves options for future growth, and
 - (iii) geographic separation for the purposes of ensuring reliability of the transmission system and efficient use of land, including the use of rights of way, corridors or other routes that already contain or provide for utility or energy infrastructure or the use of new rights of way, corridors or other routes, notwithstanding that geographic separation for the purposes of ensuring reliability of the transmission system or efficient use of land may result in additional costs,
- (b) have regard for the following matters when it considers an application for a transmission facility upgrade or expansion, or operations preparatory to the construction of a transmission facility, namely, the contribution of the proposed transmission facility:
- (i) to improving transmission system reliability;
 - (ii) to a robust, competitive electricity market;
 - (iii) to improvements in transmission system efficiency;
 - (iv) to improvements in operational flexibility;
 - (v) to maintaining options for long term development of the transmission system;
 - (vi) to a project to which section 27 applies to provide system access service,
- (c) take into account the transmission system plan filed with the Commission,
- (d) take into account the ISO's responsibilities under any enactment, and
- (e) consider the ISO's assessment of the need to be correct unless an interested person satisfies the Commission that
- (i) the ISO's assessment of the need is technically deficient, or
 - (ii) to approve the needs identification document would not be in the public interest.

AR 86/2007 s38;255/2007;153/2010;114/2018;136/2019

Applications to the Commission in respect of critical transmission infrastructure

38.1 In addition to its duties under sections 17 and 33(1) of the Act, the ISO must, at the time a TFO or other person makes an application for Commission approval under the *Hydro and Electric Energy Act* in respect of critical transmission infrastructure,

- (a) provide the Commission with transmission substation and line configurations in respect of that critical transmission infrastructure in no less detail than the ISO would provide in a needs identification document if such a document had been required for the critical transmission infrastructure, and
- (b) certify to the Commission as to whether the technical aspects of the application by the TFO or other person meet the requirements set out by the ISO in the transmission system plan in respect of that critical transmission infrastructure.

AR 153/2010 s24

Recovery of pre-construction costs

39 If an application under section 37 has been approved by the Commission under that section, if a needs identification document has been approved by the Commission under section 34 of the Act or if a direction has been given by the ISO under section 41.3 of the Act, a TFO may include in its tariff pre-construction costs, including

- (a) feasibility studies,
- (b) engineering,
- (c) purchase of equipment and materials, and
- (d) purchase of land or options to purchase land for future use or acquire a right or interest in land for future use as a right of way, as may be necessary, for long lead-time projects.

AR 86/2007 s39;255/2007;153/2010

Recovery of assistance costs

40(1) A TFO may include in its transmission tariff

- (a) costs and expenses incurred by the owner in assisting the ISO in preparing forecasts, the transmission system plan, needs identification documents and updates to any or all of them, and

- (b) the costs incurred by the owner to assist the Market Surveillance Administrator in preparing reports made under section 23(2).

(2) A DFO may include in its distribution tariff

- (a) costs and expenses incurred by the owner in assisting the ISO in preparing forecasts, the transmission system plan, needs identification documents and updates to any or all of them,
- (b) the cost of evaluating the relative merits of transmission facility and distribution options, and
- (c) the costs incurred by the owner to assist the Market Surveillance Administrator in preparing reports made under section 23(2).

AR 86/2007 s40;153/2010

Recovery of other secondary costs

41(1) A TFO or DFO may include in its tariff any one or more of the following, as applicable:

- (a) costs or expenses incurred as a consequence of a direction given by the ISO under this Regulation or any other enactment;
- (b) costs and expenses
 - (i) of a maintenance upgrade, enhancement or other modification to a transmission facility proposed under
 - (A) a rule referred to in section 3 of the *Transmission Deficiency Regulation*, if the maintenance upgrade, enhancement or other modification improves the efficiency or operation of the transmission facility but does not materially affect transmission facility capability, or
 - (B) section 11(6) as it read at any time before March 31, 2015,
 - (ii) incurred in implementing an expansion or enhancement to the transmission system access service interconnection or a transmission facility project referred to in

- (A) section 4 of the *Transmission Deficiency Regulation*, or
- (B) section 12 as it read at any time before September 22, 2014,
- (iii) incurred in order to implement the standards and rules under section 5, or
- (iv) incurred in order to implement the reliability standards.

(2) In addition to its duties under section 17 of the Act, the ISO may do either or both of the following:

- (a) certify to the Commission that a cost was incurred under subsection (1);
- (b) notify the Commission of any concern the ISO has with respect to a cost referred to in subsection (1),

but the Commission must not require the ISO to make any statement with respect to the prudence of a TFO or a DFO in incurring a cost under subsection (1).

AR 86/2007 s41;255/2007;175/2014;114/2018

Additional criteria for the Commission for TFO tariffs

42 In addition to the matters taken into account by the Commission under section 122 of the Act, when considering an application for approval of a TFO tariff, the Commission must consider that it is also in the public interest to provide consumers the benefit of unconstrained transmission access to the competitive electricity market

- (a) by providing sufficient investment to ensure the timely upgrade, enhancement or expansion of transmission facilities, and
- (b) by fostering a stable investment climate and a continued stream of capital investment for the transmission system.

AR 86/2007 s42;255/2007;114/2018;136/2019

Decisions under s34(3) of Act

43(1) The Commission shall make a decision under section 34(3) of the Act as to whether to approve a needs identification document in a timely manner and, if possible, within a period of 180 days after receipt of the complete needs identification document.

(2) If the Commission cannot make a decision within the 180-day period referred to in subsection (1), the Commission shall

- (a) before the 180-day period expires
 - (i) notify the ISO of the reasons why it has not made or will not be able to make a decision,
 - (ii) state its best estimate as to when it reasonably expects to make a decision, and
 - (iii) make the reasons and estimate public,
- and
- (b) make its decision within 90 days after the expiry of the 180-day period.

AR 86/2007 s43;255/2007

Commission rules about transmission facilities

44 The Commission must ensure that any rules made by it under section 129(1) of the Act respecting transmission facilities are consistent with the standards and rules under section 5.

AR 86/2007 s44;255/2007

45 Repealed AR 255/2007 s20.

Prudence of activities and costs

46(1) The Commission must consider that the ISO's own administrative costs that have been approved by the ISO members are prudent unless an interested person satisfies the Commission that those costs or expenses are not prudent.

(2) The Commission must consider that payments that are included in a TFO's tariff made by a TFO to an owner or occupant of land pursuant to any agreement between the TFO and the owner or occupant that

- (a) grants the TFO the right of entry in respect of the surface of the land, or
- (b) provides for compensation resulting from or related to the use of the land for the purposes of locating transmission facilities on it,

are prudent unless an interested person satisfies the Commission that the payments are not prudent.

AR 86/2007 s46;255/2007;145/2013;175/2014

ISO tariff - transmission system considerations

47 When considering an application for approval of the ISO tariff under sections 121 and 122 of the Act, the Commission must

- (a) ensure
 - (i) the just and reasonable costs of the transmission system are wholly charged to DFOs, customers who are industrial systems and persons who have made an arrangement under section 101(2) of the Act, and exporters, to the extent required by the ISO tariff, and
 - (ii) the amount payable by a DFO is recoverable in the DFO's tariff,
- (b) ensure owners of generating units are charged local interconnection costs to connect their generating units to the transmission system, and are charged a financial contribution toward transmission system upgrades and for location-based cost of losses, and
- (c) consider all just and reasonable costs related to arrangements and agreements described in section 9(5) of the Act.

AR 86/2007 s47;255/2007

ISO tariff - approval of ISO's costs

48(1) A reference in the Act to "prudent" or "appropriate" in relation to the ISO's costs for the provision of ancillary services and costs of transmission line losses means the amounts of those costs that have been approved by the ISO members.

(2) When considering the ISO's own administrative costs under section 46 and the ISO's costs for the provision of ancillary services, the Commission must allocate to customer classes those amounts that are set out in the ISO's application to the Commission for approval of the ISO tariff.

AR 86/2007 s48;255/2007

Part 8

Time Period Extension, Paramountcy, Recovery of Must-run Costs, Transition, Repeal and Expiry

Extension and effect of time periods

49(1) The Minister may, by order, extend any date or time period specified in this Regulation whether or not that date has passed or that time period has expired.

(2) The authority of the ISO under this Regulation continues even if a date or time period prescribed for taking an action has passed or expired.

(3) The ISO may amend, repeal or replace a rule, standard, practice, policy, procedure, criteria or process relating to this Regulation, whether or not the date or time period, or the extended date or time period, for enacting or establishing the rule, standard, practice, policy, procedure, criteria or process has passed or expired.

AR 86/2007 s49;114/2018

Paramountcy

50 This Regulation prevails to the extent of any inconsistency, conflict or uncertainty between this Regulation and any agreement relating to reliability standards, irrespective of whether the agreement is entered into before or after the coming into force of this Regulation.

Recovery of must-run costs

51(1) For the purpose of section 30(2)(a)(ii) of the Act, the compensation must be no greater than an amount that would result in the recovery of fixed, operating and maintenance costs, including a reasonable rate of return, using a methodology described in the ISO tariff.

(2) The ISO must include in the ISO tariff a cost determination methodology and related terms and conditions of service for the purposes of subsection (1).

(3) Costs associated with subsection (1) must be included and recovered under the ISO tariff in the same manner as transmission costs under section 47(a)(i).

Transition

52(1) This Regulation does not apply to an application for approval of a needs identification document under section 34 of the

Act or to an application for an approval, permit or licence under Part 2 of the *Hydro and Electric Energy Act* in respect of a transmission facility or part of a transmission facility if that application was considered complete by the Commission before the coming into force of this Regulation.

(2) Where this Regulation does not apply to an application referred to in subsection (1) as a result of the operation of subsection (1), the *Transmission Regulation* (AR 174/2004) as it existed immediately before the coming into force of this Regulation continues to apply to that application as if that Regulation had not been repealed.

AR 86/2007 s52;255/2007

Repeal of AR 174/2004

53 Subject to section 52, the *Transmission Regulation* (AR 174/2004) is repealed.

AR 86/2007 s53;121/2007

Expiry

54 For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on December 31, 2021.

AR 86/2007 s54;255/2007;7/2018



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