



Alberta Electric System Operator

**Approval of Proposed Amended Sections
202.6, 306.5 and 306.7 of the ISO Rules**

October 26, 2022

Alberta Utilities Commission

Decision 27604-D01-2022

Alberta Electric System Operator

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202.6, 306.5 and 306.7 of the ISO Rules

Application 27604-A001

Proceeding 27604

October 26, 2022

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The Commission may, no later than 60 days of the date of this decision and without notice, correct typographical, spelling and calculation errors and other similar types of errors and post the corrected decision on its website.

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1 Introduction

1. On August 26, 2022, the Alberta Electric System Operator (AESO)¹ applied² to the Alberta Utilities Commission requesting approval of proposed amendments to the following independent system operator (ISO) rules, to be effective January 1, 2023:

(a) Section 202.6, *Adequacy of Supply*

(b) Section 306.5, *Generation Outage Reporting and Coordination*, and

(c) Section 306.7, *Mothball Outage Reporting*.

2. For the reasons that follow, the Commission approves the proposed amended Sections 202.6, 306.5 and 306.7 as submitted by the AESO.

3. Section 202.6 of the ISO rules pertains to supply adequacy-related forecasts and assessments, and the actions the AESO may take in the event of supply shortfall on the Alberta Interconnected Electric System (AIES). It sets out requirements pertaining to: (i) the means for the AESO to monitor and report on short- and long-term supply adequacy; (ii) the way the AESO is to forecast and assess supply adequacy; and (iii) the detailed calculations and methodologies for these forecasts and assessments.

4. The AESO determined that the long-term adequacy assessment methodology in subsection 4 of Section 202.6 required amendments to account for wind and solar generation; however, in making these amendments, the AESO became aware of the regulatory burden associated with revising calculations or methodologies contained in ISO rules. As such, in accordance with the Government of Alberta's red tape reduction initiative, the AESO decided that it would be most efficient and flexible to transfer the detailed calculations and methodologies in Section 202.6 to an associated information document.

5. The proposed changes to Section 202.6 require minor changes in the terminology contained within Sections 306.5 and 306.7. Due to the administrative and uncontroversial nature of these changes, the bulk of this decision will focus on Section 202.6.

6. During consultation, many stakeholders expressed concern about a lack of future Commission oversight over the detailed supply forecast- and assessment-related calculations and methodologies, holding that these amendments: (i) broaden the AESO's authority to take actions that intervene in the market; and (ii) eliminate market indicators for stakeholders, reducing market transparency as a result.

¹ The ISO is established under Section 7(1) of the *Electric Utilities Act*, and operates under the trade name AESO. For the purposes of this decision, AESO and ISO are used interchangeably.

² Application 27604-A001.

7. In response, the AESO clarified that it was not proposing to give itself unchecked authority to change supply adequacy calculations and methodologies, or to change the current availability of its supply adequacy reporting. To address stakeholder concerns, the AESO made further amendments to Section 202.6, requiring the AESO to:

- (i) Publish the AESO's forecasts and reports relating to short-term and long-term adequacy, as well as details of the AESO's calculations and methodologies underlying such forecasts and reports; and
- (ii) Continue to provide stakeholders with an opportunity to comment on future updates to forecast- and assessment-related calculations and methodologies.

8. All changes can be seen in the blackline versions of the proposed amended Sections 202.6, 306.5 and 306.7, attached to this decision as Appendix A.

9. On August 31, 2022, the Commission issued a notice of application and requested the submission of statements of intent to participate (SIP) by September 14, 2022. No SIPs were received.

10. On September 29, 2022, the Commission issued information requests (IRs) to the AESO. The AESO submitted its responses on October 6, 2022. The Commission considers that the record of this proceeding closed on October 6, 2022.

11. The Commission reviewed the entire record for this proceeding in coming to this decision; lack of reference to a matter addressed in evidence or argument does not mean that it was not considered.

2 Legislative and regulatory framework

12. Under Section 20.2(1) of the *Electric Utilities Act*, the AESO must apply to the Commission for approval of a proposed ISO rule.

13. After considering an ISO rule, in accordance with Section 20.21(1) of the *Electric Utilities Act*, the Commission may, by order, approve the ISO rule, direct the AESO to revise the ISO rule or refuse to approve the ISO rule.

14. In accordance with Section 20.21(2) of the *Electric Utilities Act*, the Commission may approve an ISO rule filed under Section 20.2 only if the Commission is satisfied:

- (a) that the ISO rule
 - (i) is not technically deficient,
 - (ii) supports the fair, efficient and openly competitive operation of the market to which it relates, and
 - (iii) is in the public interest,[...]
- and
- (c) that the Independent System Operator, in developing the rule, complied with the Commission rules made under section 20.9.

15. Section 20.9 of the *Electric Utilities Act* requires the Commission to make rules requiring the AESO to consult with parties in the development of ISO rules and permits the Commission to develop rules governing the AESO's process in the development of those ISO rules. Rule 017: *Procedures and Process for Development of ISO Rules and Filing of ISO Rules with the Alberta Utilities Commission*, is the Commission rule which was created in response to Section 20.9 of the *Electric Utilities Act*.

3 Issues

3.1 Do the rule amendments meet the criteria set out in the Electric Utilities Act

16. The AESO requested that the Commission approve the proposed amendments to Sections 202.6, 306.5 and 306.7 of the ISO rules pursuant to Section 20.21 of the *Electric Utilities Act*, having regard to each of the following factors:

- (a) The ISO rule is not technically deficient (Section 20.21(2)(a)(i) of the *Electric Utilities Act*).
- (b) The ISO rule supports the fair, efficient and openly competitive operation of the market to which it relates (Section 20.21(2)(a)(ii) of the *Electric Utilities Act*).
- (c) The ISO rule is in the public interest (Section 20.21(2)(a)(iii) of the *Electric Utilities Act*).

Each of these items is examined in detail in the sections that follow.

3.1.1 The ISO rule is not technically deficient

17. The AESO submitted that the proposed amendments to Section 202.6 are:

- (a) Consistent with the statutory scheme and authorized by Section 20(1) of the *Electric Utilities Act*;
- (b) Complete and reasonably self-contained;
- (c) Drafted to be clear, concise and cohesive to facilitate stakeholder understanding;
- (d) Compliant with the Commission direction in Decision 2009-007³ to “embed supply adequacy measures in an authoritative document”,⁴ and

³ Decision 2009-007: Alberta Electric System Operator - Objections to ISO Rule 6.3.5, 6.3.6 and Appendix 7 Long Lead Time Energy Dispatches and Directives, Proceeding 33, Applications 1567942-1, 1577529-1, 1577530-1, 1577532-1, January 19, 2009.

⁴ The quoted text is the AESO's wording from Exhibit 27604-X0001, Application re amended Section 202.6, PDF page 13. The actual instructions in Decision 2009-007, paragraph 54 were for the AESO “to clarify the measures [the AESO] will use to determine that the adequacy assessment indicates insufficient supply to meet AIES demand.”

(e) Continuing to meet the requirements of Section 18(1) of the *Transmission Regulation*.⁵

18. The AESO further indicated that the approach to having detailed calculations and methodologies in an associated information document rather than Section 202.6 is consistent with other ISO rules (notably Section 304.3, *Wind and Solar Power Ramp Up Management*). This enables greater efficiency when calculations and methodologies require routine or special amendments, while still maintaining the requirement, within ISO rules such as Section 202.6, for the AESO to perform crucial actions (such as posting and consulting on amended methodologies).

19. Regarding paragraph 17(d) above, the Commission notes that, as information documents are expressly not authoritative documents,⁶ the AESO's proposed amendments to Section 202.6 do not appear to "embed supply adequacy measures in an authoritative document."⁷ However, the Commission is satisfied, by the lack of stakeholder objections in this proceeding, that stakeholders do not currently require the AESO to embed specific supply adequacy assessment terms and formulae in an authoritative document.

20. In reviewing the proposed amendments to Section 202.6, the Commission was mindful of the fact that the AESO is currently consulting on energy storage-related amendments to various ISO rules, including Section 202.6.

21. In its IR responses, the AESO indicated that, under its short-term implementation guidelines for energy storage, it has been accounting for energy storage in Section 202.6 and all other ISO rules by treating energy storage as a "generating unit" or "aggregated generating facility."

22. Further, the AESO explained that future energy storage-related amendments to Section 202.6 reflect how the new definition of "energy storage resource" would be incorporated into the existing version of Section 202.6. The AESO confirmed that its current treatment of energy storage in its supply adequacy assessments will remain unchanged.

3.1.2 The ISO rule supports the fair, efficient and openly competitive operation of the market to which it relates

23. The AESO indicated that its consultation revealed the extent to which stakeholders rely on supply adequacy reports as a source of market-related information. In the AESO's view, the proposed amendments to Section 202.6 do not remove or obscure market indicators, with sections 2, 3 and 4 supporting the development and continued publication of the following AESO reports: *24-Month Supply Adequacy Report*, *Short-term [7-day] Adequacy Report*, and *Long-Term Adequacy Report*. All of these will continue to be available on the AESO's website,

⁵ **18(1)** The ISO must [...] 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.

⁶ <https://aeso.ca/rules-standards-and-tariff/information-documents/>

⁷ Exhibit 27604-X0001, Application re amended Section 202.6, PDF page 8. The AESO describes that its framework consists of authoritative documents (for purposes of this application, ISO rules) and supporting documents (information documents).

along with the underlying calculations and methodologies contained in AESO information documents.

24. Further, the AESO submitted that proposed new subsection 7(2) supports the development and publication of a new report on potential adequacy issues that may require preventative action if the long-term adequacy threshold specified in proposed new subsection 6 (current subsection 5) is exceeded. The AESO confirmed that the proposed amendments to Section 202.6 do not grant the AESO additional authority or discretion to take out-of-market action during a supply shortfall, or remove any existing legislative checks and balances related to AESO discretion and accountability for supply adequacy activities.

25. In summary, the AESO stated that the proposed amendments to Section 202.6 support a fair, efficient and openly competitive market by providing the AESO with greater flexibility to make timely future updates; promoting process efficiency for both the AESO and stakeholders; enhancing the accuracy and quality of supply adequacy information provided to market participants; not compromising the availability of the supply adequacy information that is already provided for market participants; and ensuring ongoing transparency and equal access to information by requiring the AESO to involve market participants when future updates to calculations and methodologies are needed.

3.1.3 The ISO rule is in the public interest

26. To keep pace with the ongoing transformation and evolution of the Alberta electricity market, the AESO submitted that it is in the public interest to implement more efficient, flexible and timely processes relating to supply adequacy matters. The AESO posited that the transfer of detailed calculations and methodologies to a more easily updated information document facilitates regulatory efficiency and supports the Government of Alberta's red tape reduction initiative, without compromising transparency or accountability. All of the currently available supply adequacy reports and resources will remain.

27. The AESO held that the amendments to Section 202.6 would result in direct savings to the AESO and stakeholders due to the costs of avoidable Rule 017 consultations.

28. Regarding stakeholder concerns that the detailed calculations would no longer have Commission oversight, the Commission expressed concern in its IRs that the complaint mechanisms outlined in sections 25 and 26 of the *Electric Utilities Act* often lead to costly and time-consuming proceedings that could offset the direct savings referenced above. In its IR responses, the AESO agreed that the formal complaint process to the Commission should be a last resort and indicated that it will use its engagement process to resolve, or at least narrow, areas of disagreement. Failing that, the AESO stated that stakeholders can still engage in discussions with the AESO, submit an ISO rule proposal to recommend changes to Section 202.6, and participate in the dispute resolution process under Section 103.2, *Dispute Resolution*, of the ISO rules.⁸

⁸ Exhibit 27604-X0009, AESO-AUC-2022SEP29-001.

3.1.4 Conclusion

29. The Commission is satisfied that the proposed amendments to Sections 202.6, 306.5 and 306.7 meet all requirements for approval as set out in Section 20.21(2) of the *Electric Utilities Act*.

30. More specifically, noting the absence of opposition to the application, and in the absence of evidence to the contrary, the Commission is satisfied, based on the AESO's explanations and IR responses, that the proposed amendments to sections 202.6, 306.5 and 306.7: are not technically deficient, support the fair, efficient and openly competitive operation of the market to which they relate and are in the public interest.

3.2 Did the AESO fulfill its obligation to adequately consult with stakeholders

31. Sections 4 and 5 of Rule 017 require the AESO to post notice of proposed rules, receive comments from stakeholders and provide written responses to stakeholder comments, all of which must be posted on its website. Beginning in January 2021, the AESO issued a letter of notice to stakeholders, received comments from stakeholders and made revisions to Section 202.6 where appropriate. All comments, along with AESO replies explaining the rationale for why certain positions were accepted or rejected, were then posted to the AESO's website. Following stakeholder concerns, the AESO initiated a second round of consultations in October 2021, after which the AESO made further changes to Section 202.6.

32. The AESO submitted that its consultation process included any party that was interested in, or may be directly affected by, the proposed amendments to Section 202.6.

33. The AESO received requests for a stakeholder session, but mindful of the significant resource and time commitments required amidst many other industry initiatives, the AESO determined instead to focus on providing written rationales for its positions throughout the consultation process. Ultimately, the AESO is of the opinion that this process provided sufficient opportunity for stakeholder submissions, and that its consultation satisfied the requirements of Rule 017.

34. Having reviewed the details provided in the application of the consultation conducted by the AESO, the Commission is satisfied that the informational and consultation requirements established by Rule 017 have been met. The Commission agrees that a stakeholder session is not specifically required by Rule 017.

4 Order

35. The Commission finds that, in proposing amendments to Sections 202.6, 306.5 and 306.7, the AESO has complied with Section 20.21 of the *Electric Utilities Act* and Rule 017.

36. Accordingly, pursuant to Section 20.21(1)(a) of the *Electric Utilities Act*, the Commission, by order, approves the following proposed amended sections of the ISO rules, to be effective January 1, 2023:

(a) Section 202.6, *Adequacy of Supply*,

(b) Section 306.5, *Generation Outage Reporting and Coordination*, and

(c) Section 306.7, *Mothball Outage Reporting*.

Dated on October 26, 2022.

Alberta Utilities Commission

(original signed by)

Carolyn Dahl Rees
Chair

(original signed by)

Vincent Kostas
Acting Commission Member

Appendix A – Amended Sections 202.6, 306.5 and 306.7 of the ISO Rules



Sections 202.6,
306.5 and 306.7

ISO Rules

Part 200 Markets

Division 202 Non-Routine Conditions in the Markets

Section 202.6 Adequacy of Supply

A.1



Applicability

- 1 Section 202.6 applies to:
 - (a) the ISO.

Requirements

Supply Adequacy Assessments Forecast

~~2 The ISO must, in order to assist in determining whether to cancel a **planned outage** or **unplanned outage** of generation under section 306.5 of the ISO rules, *Generation Outage and Reporting*, assess the **adequacy** of supply by, at a minimum, completing a supply and load forecast using the peak demand hour of every **day** for a two (2) year period, calculated as the sum of the following:~~

- ~~(a) the **maximum capability** from all **generating units** in Alberta with a **maximum capability** equal to or greater than 5 MW;~~
plus
- ~~(b) an estimate of the output from **aggregated generating facilities**;~~
plus
- ~~(c) import **available transfer capability** on **interconnections** with a program that increases **available transfer capability**;~~
minus
- ~~(d) declared **generating unit** derates;~~
minus
- ~~(e) any capacity of **generating units** which are affected by **transmission constraints**;~~
minus
- ~~(f) anticipated **generating unit** derates;~~
minus
- ~~(g) the daily forecast **Alberta internal load**;~~
minus
- ~~(h) **operating reserves** requirements;~~
plus
- ~~(i) price responsive load;~~
plus
- ~~(j) aggregate **planned outage**, **unplanned outage** and **forced outage** records for load;~~
plus
- ~~(k) load for **demand opportunity service**.~~

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~~Short Term~~² The ISO must forecast supply **adequacy** in accordance with a prescribed methodology.

Real-time Adequacy Assessments

3 The ISO must, ~~every hour~~, assess and report on the short-term **adequacy** of supply by, at a minimum, completing a real-time **adequacy** assessment ~~for each settlement interval of the current day and for the six (6) remaining days of the forecast scheduling period on the day preceding that current day~~, calculated as the sum of the following:

- (a) ~~available capability~~ from all generating ~~source assets~~ in Alberta with a **maximum capability** equal to or greater than 5 MW with a start-up time less than or equal to one (1) hour or with a submitted start time at or before the period being assessed;
plus
- (b) ~~estimated output from aggregated generating facilities~~;
plus
- (c) ~~estimated amount of price responsive load~~;
plus
- (d) ~~estimated amount of demand opportunity service load that is to be curtailed~~;
plus
- (e) ~~on-site generation that supplies behind the fence load and submits available capability as a net-to-grid value~~;
plus
- (f) ~~import available transfer capability on the interties~~;
minus
- (g) ~~the peak forecast load from the day-ahead forecast of Alberta internal load~~;
minus
- (h) ~~the ISO's spinning reserve requirement~~;
minus
- (i) ~~constrained down generation, with the exception of constrained down aggregated generation facilities~~.

Long Term Adequacy Metrics and Reporting

4(1) The ISO must ~~establish, maintain and report on~~ **long term adequacy** metrics ~~on a quarterly basis~~ in accordance with this section 202.6.

The ISO must make publicly available the following **long term adequacy** metrics on a quarterly basis:

- (a) ana metric listing Alberta electrical generation projects and retirements ~~metric which is a non-confidential project list indicating such relevant information as the project name, the project proponents, the MW size of the project and the estimated~~;

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- (a) ~~a 5-year of project completion;~~
- (b) ~~a forecast reserve margin metric, including a reserve margin metric which must have a minimum five (5) year forecast period and be calculated using a methodology that;~~
 - (i) ~~is a measure, expressed in percentage terms, representing the amount of generation capacity at the time of system peak that is in excess of the annual peak demand;~~
 - (ii) ~~utilizes ISO load forecasts;~~
 - (iii) ~~utilizes existing **generating unit** capacity information such as **maximum capability** and the generation metric forecast capacity published as part of the Alberta electrical generation projects and retirements metric;~~
 - (iv) ~~accounts for behind the fence load and generation capacity;~~
 - (v) ~~excludes wind and solar generation and adjusts for hydro generation available at the time of system peak;~~
 - (vi) ~~incorporates **interconnection** capacity; and~~
 - (vii) ~~may reflect more than a single supply and load scenario for the system;~~
- (c) ~~a supply cushion metric which provides a two (2)-year forecast of available daily generation capacity and peak demand both measured in MW which must be calculated using a methodology that; and~~
 - (i) ~~incorporates **generating unit** capacity information such as the **maximum capability of generating units**;~~
 - (ii) ~~utilizes ISO load forecasts;~~
 - (iii) ~~incorporates daily average **planned outages** and derates as reported by **pool participants** in their **planned outage** scheduling submissions as well as a nominal average **unplanned outage** and **forced outage** rate;~~
 - (iv) ~~accounts for behind the fence load and generation capacity;~~
 - (v) ~~excludes wind and solar generation and adjusts for hydro generation available at the time of daily system peak;~~
 - (vi) ~~excludes **interconnection** capacity; and~~
 - (vii) ~~excludes existing generation that is contractually available but that does not participate in the energy market;~~
- (d) ~~a two (a 2)-year probability of supply **adequacy** shortfall metric which provides a probabilistic assessment of a state of **supply shortfall** over the next two (.~~

Publications and Provision of Notice

5(1) The AESO must publish:

- (a) ~~the forecasts and reports set out in subsections 2) years and which must be calculated using a methodology that; 3, and 4; and~~
 - (viii) ~~utilizes ISO load forecasts;~~
 - (ix) ~~utilizes existing **generating unit** capacity information such as **maximum capability** and the generation metric capacity published as part of the Alberta electrical generation and retirements metric;~~

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A.1



~~(b) incorporates hourly **planned outages** details of the calculations and methodologies underlying the forecasts and reports referenced in subsection 5(1)(a).~~

~~(2) The ISO must:~~

~~(a) give 60 **days**' notice of any proposed changes to the calculations and ~~derates as reported by pool~~ methodologies referenced in subsection 5(1)(b); and~~

~~(a)(b) provide an opportunity for **market participants** in their **planned outage** scheduling submissions; to provide feedback on the proposed changes.~~

~~(x) incorporates **interconnection** capacity estimates; and~~

~~(xi) utilizes a distribution of outcomes for the following inputs:~~

~~(A) intermittent or energy limited resources; and~~

~~(B) **unplanned outages** and **forced outages**.~~

Long Term Adequacy Threshold Determination and Use

~~56(1) The ISO must, for the ~~two (2)~~-year probability of supply **adequacy** shortfall metric model set out in subsection 4(2)(d), use a **long term adequacy** threshold which:~~

~~(a) represents the equivalent impact of the probability of having a system supply shortfall occur once every ~~ten (10)~~ years; and~~

~~(b) is calculated as the ~~one (1)~~ hour average **Alberta internal load** for a year divided by ~~five (5)~~;~~

~~being the level which, if exceeded, would indicate a need for the ISO to consider taking preventative action.~~

~~(2) The ISO must, using the ~~two (2)~~-year probability of supply **adequacy** shortfall metric, estimate on a quarterly basis the expected total system MWh not served in a subsequent ~~two (2)~~-year period.~~

~~(3) The ISO must, if the estimated total system MWh not served exceeds the **long term adequacy** threshold established at the time, undertake further studies to verify the likely cause, magnitude, and timing of the potential **adequacy** issue.~~

Long Term Adequacy Threshold Actions

~~67(1) The ISO may, if the **long term adequacy** threshold is exceeded and the ISO deems that a potential **adequacy** issue requires preventative action, procure ~~any one (1) or more of the following~~ services to address the potential **adequacy** issue, including:~~

~~(a) load shed;~~

~~(b) self-supply and back-up generation that would not otherwise be available to participate in the energy market; ~~and/or~~~~

~~(c) emergency portable generation;~~

~~being **long term adequacy** threshold actions.~~

~~Procurement of Long Term Adequacy Threshold Actions~~

~~7 The ISO must procure **long term adequacy** threshold actions using established ISO procurement procedures and, where possible and practical, in a manner that encourages competition.~~

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A.1



Recovery of Long Term Adequacy Threshold Actions Costs

~~8(1) The ISO must, if it procures long term adequacy threshold actions, establish a methodology that results in the recovery of the costs of long term adequacy threshold actions.~~

~~(2) The ISO must institute a charge to load, primarily directed to the pool participants who consume energy during higher priced hours, which recovers the costs of long term adequacy threshold actions.~~

~~(2) The ISO must, prior to procuring services in accordance with subsection 7(1), publish a report on the potential adequacy issues requiring preventative action.~~

Revision History

Date	Description
<u>2022-xx-xx</u>	<u>Revised subsection 2 by adding a reference to a prescribed methodology; subsection 3 by removing the detailed calculations for short-term adequacy assessments; added requirements in subsection 5 to publish forecasts, assessments, and associated calculations and methodologies, and to provide notice of potential changes and opportunity for feedback; added a requirement in subsection 7 to publish a report on potential adequacy issues requiring preventative action; and other minor administrative amendments, including amendments to align with the AESOs drafting principles.</u>
2018-09-01	Revised references to “wind aggregated generating facilities” to “aggregated generating facilities”; replaced “wind” with “wind and solar generation”; administrative revisions.
2014-10-01	Amendment to the short term adequacy assessments calculation to include the ISO’s spinning reserve requirement.
2013-12-20	Initial release

Applicability

- 1 Section 306.5 applies to:
 - (a) a **pool participant** with a generating **source asset** with a **maximum capability** of 5 MW or higher;
 - (b) a **legal owner** of a **source asset** described in subsection 1(a); and
 - (c) the **ISO**.

Requirements

General

- 2(1) A **pool participant** must, for any outage that results or will result in a change in **available capability** of 5 MW or greater, comply with the notification requirements set forth in subsections 3, 4 or 5, as applicable.
- (2) A **pool participant** must provide to the **ISO**, in writing and in conjunction with its first **planned outage** notification, a list of contact **persons** who must be involved in the planning of outages and be in a position of authority to resolve with the **ISO** any issues or concerns regarding outages.
- (3) A **pool participant** must submit information required to be provided to the **ISO** pursuant to this Section 306.5 via the Energy Trading System.

Planned Outage Notification Requirements

- 3(1) A **pool participant** must, in respect of any **planned outage**, submit to the **ISO**:
 - (a) the dates, times, durations and impact to MW capability for the **planned outage**;
 - (b) the specific nature of the **planned outage** work to be done; and
 - (c) a designation of the **planned outage** as “Derate-Planned” or “Outage-Planned”.
- (2) A **pool participant** must, by the first (1st) **day** of every **month** after the date of **energization**, submit the information set out in subsection 3(1) to the **ISO** related to **planned outages** that, as of the time of the submission, are planned to occur at any time within the next 24 **months**.
- (3) A **pool participant** must, with respect to:
 - (a) any revisions to the information submitted to the **ISO** under subsection 3(1); or
 - (b) a **planned outage** that is not included in the submission set out in subsection 3(2);submit such information or **planned outage** as soon as reasonably practicable.
- (4) A **pool participant** must, if information submitted under subsection 3(3) is submitted later than 3 **months** prior to the **day** the **planned outage** is to start, include a statement in its submission setting out the reasons that the information varies from the original subsection 3(1) submission or was not included in the submission set out in subsection 3(2).

Delayed Forced Outage Notification Requirements

- 4(1) A **pool participant** must, as soon as reasonably practicable, in respect of a **delayed forced outage**, submit to the **ISO**:
 - (a) the dates, times, durations and impact to MW capability for the **delayed forced outage**;
 - (b) the specific nature of the **delayed forced outage** work to be done; and
 - (c) a designation of the **delayed forced outage** as “Derate-Forced” or “Outage-Forced”.

(2) A **pool participant** must also, as soon as reasonably practicable, in respect of a **delayed forced outage** for which the **pool participant** has less than 24 hours between the time of discovering the circumstances requiring the **delayed forced outage** and the time of commencing the **delayed forced outage**, contact the **ISO** by telephone, on a telephone number that the **ISO** designates, which must contain a voice recording system.

Automatic Forced Outage Notification Requirements

5 A **pool participant** must, as soon as reasonably practicable, submit **automatic forced outage** information as follows:

- (a) through contacting the **ISO** by telephone, on a telephone number that the **ISO** designates, which must contain a voice recording system; and
- (b) submit a designation of the **automatic forced outage** as “Derate-Forced” or “Outage-Forced”.

Authority to Issue an Outage Cancellation Directive

6(1) The **ISO** may, if after:

- (a) completing the assessments and procedures set out in subsections 7(2) through 7(6) the **ISO** determines that there remains:
 - (i) an immediate need on a short term basis for services provided by certain **source assets** to maintain the necessary level of **reliability** or **adequacy**, as the case may be; and
 - (ii) a high probability that the situation will not be alleviated in a voluntary manner:
 - (A) by any **pool participants** amending or revising outage plans; or
 - (B) through the ordinary course operation of the market; and
- (b) taking into account the factors set out in subsection 7(7) below,

issue a **directive** to cancel any 1 or more of a **planned outage** or a **delayed forced outage**.

(2) The **ISO** must not issue a **directive** canceling an outage without the authorization of the Chief Executive Officer of the **ISO** or his designee.

Outage Cancellation Procedure

7(1) The **ISO** must, prior to issuing a **directive** canceling an outage, comply with the procedures set out in subsection 7(2) through 7(8) in sequence.

(2) The **ISO** must consider and analyze the results of the **adequacy assessments forecast** undertaken in accordance with subsection 2 of Section 202.6 of the **ISO rules**, *Adequacy of Supply*, and perform a further assessment of the status of all **source assets** based on all **planned outage plans pool participants** submit under subsection 3.

(3) The **ISO** must:

- (a) after completing the assessments and taking into account the total amount of all generating **source assets** which are planned for outages; and
- (b) if the **ISO** anticipates a high probability of a supply **adequacy** shortfall or **reliability** concern

notify **market participants** on the AESO website of its determination.

- (4) The **ISO** must continue to conduct further situational analysis to seek to alleviate the potential supply **adequacy** shortfall or **reliability** concern and avoid the cancellation of any outages.
- (5) The **ISO** must post the determination referred to in subsection 7(3) above for a minimum period of 1 calendar week, and in anticipation that certain **pool participants** may have flexibility to voluntarily amend plans for outages to assist in the alleviation of the supply **adequacy** shortfall or **reliability** situation.
- (6) The **ISO** must, if the **ISO** posting referred to in subsection 7(5) and any resulting voluntary actions do not result in a reduction in the total amount of generating **source asset** capacity planned for outages such that the forecast supply **adequacy** shortfall or **reliability** remains unresolved, contact the individual **pool participants** to request that they further review outage plans.
- (7) The **ISO** must consider all of the following factors in its determination as to whether or not to issue a **directive** canceling an outage as contemplated in this subsection 7:
- the economic and operational consequences for the **legal owner** of the **source asset** and for any designated **pool participant**, if a different **person**;
 - the operational and functional impact on the **source asset** if the outage is cancelled;
 - the effectiveness of canceling the outage in alleviating the supply **adequacy** shortfall or **reliability** concern;
 - the historical frequency that a given **source asset** has been the subject of outage cancellations relative to other **source assets**;
 - the length of time of, and reasons for, any outage the **pool participant** has previously submitted to the **ISO** under the reporting requirements set out in this Section 505.6;
 - the extent to which the outage will begin or end during the period of the forecast supply **adequacy** shortfall or **reliability** concern;
 - any requirements or material implications under or related to any applicable municipal, provincial or federal legislation or regulations if the **ISO** proceeds to issue a **directive** to cancel an outage; and
 - the practicality and effectiveness of market-based solutions to alleviate the supply **adequacy** shortfall or **reliability** concern, including a consideration of load curtailment options.
- (8) The **ISO** must not issue a **directive** canceling an outage more than 90 **days** in advance of the first **day** of the period which has been determined to be the commencement of the **reliability** or **adequacy** shortfall.

Outage Planned Costs and Work Submission

- 8(1)** A **pool participant** who has received a **directive** for the cancellation of an outage must use all reasonable efforts to submit to the **ISO** in advance of the period when the outage would have occurred:
- a detailed description and estimation of the work, which was to have been carried out during the outage, including an itemization of the specific plant, machinery and equipment which are the subject of the work during the that period; and
 - an estimate of any known or anticipated **incremental generation costs** that may be the basis for a claim for compensation under these **ISO rules**.
- (2)** The submissions set out in subsection 8(1) do not limit compensation claims for other reasonable demonstrable costs.

Time Constrained Outage Cancellation

9 The **ISO** may, notwithstanding subsection 7, dispense with any or all of the procedures set out in that subsection 7 and proceed to issue a **directive** to cancel an outage, if in the **ISO's** opinion, it is evident that immediate **reliability** or **adequacy** circumstances do not allow sufficient time to permit the **ISO** to comply with such procedures.

Outage Cancellation Report

10 The **ISO** must, if it issues a **directive** under subsection 6 to cancel an outage, prepare a report and post it on the AESO website, which report must contain:

- (a) an explanation of the circumstances, background and chronological events that caused and are related to the issuance of the **directive** cancelling the outage;
- (b) the particulars of the outage that was cancelled, including date of cancellation, duration and MW affected;
- (c) any material market impacts known to the **ISO**;
- (d) whether the cancellation was a time and procedurally constrained one under subsection 9, and if so, the reasons for a decision to depart from any prescribed procedures set out in subsection 7; and
- (e) any other matters that, in the **ISO's** opinion, are necessary in order to provide a full and complete explanation to **market participants** of the decision.

Payment Eligibility for Incremental Generation Costs and Claim Limitations

11(1) Subject to this subsection 11, subsection 5.1 of Section 103.4 of the **ISO rules**, *Power Pool Financial Settlement* and the definition of **incremental generation costs**, a **pool participant** or **legal owner** of a generating **source asset**, or both of them if different **persons**, that has complied with a **directive** to cancel an outage issued pursuant to subsection 6, is eligible to receive payment for **incremental generation costs** from the **ISO**.

(2) A **pool participant** or a **legal owner** who is a claimant under this subsection 11 must, within forty (40) **days** after the end of the **settlement period** related to the period during which the **directive** was effective, provide the **ISO** with a written statement which contains:

- (a) the detailed information of the claim and calculation of **incremental generation costs** as incurred and caused by the cancellation, to the extent those details and calculations are known or estimable as of the date of delivery of the statement to the **ISO**; or
- (b) if any detailed information or calculations are not known or estimable as of the date of delivery of the statement, an estimate of the date by which any of the outstanding information or calculations required under subsection 11(2)(a) will be finally determined and delivered to the **ISO**.

(3) A **pool participant** or a **legal owner** who is a claimant under this subsection 11 must provide the **ISO** with a supplementary written statement setting out all outstanding information or calculations as soon as reasonably practicable after the delivery of the original statement, but in any event no later than 1 year after the end of the **settlement period** related to the period during which the cancellation **directive** was effective.

(4) A **pool participant** or a **legal owner** who is a claimant under this subsection 11 must provide to the **ISO**:

- (a) any and all of its own and third party supporting data, records, invoices, formulas, calculations, third party contract claims and related terms and conditions;

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- (b) any other information or materials used to calculate or determine the amounts claimed in the statement or any supplementary statement; and
- (c) any other detail and information the **ISO** may reasonably request

in order to verify the **incremental generation costs**, claims, calculations and particulars.

(5) The **ISO** must approve the compensation and settlement in respect of any **incremental generation costs** on or before the 40th **day** following the **day** of the receipt by the **ISO** of the last of the initial statement, supplementary statement or deficiency materials.

(6) The **ISO** must reject the portion of a claim for **incremental generation costs** related to any of the following:

- (a) costs or claims related to a cancellation for which the claimant is eligible for compensation pursuant to the provisions of a **transmission must-run** contract with the **ISO**;
- (b) costs or claims associated with or related to the claimant’s market or hedging portfolio, other than those allowed under subsection (iv)(d)(B) of the definition of **incremental generation costs** which limits such costs and claims to the **source asset** which is the subject of the **directive**;
- (c) lost opportunity costs, or other form of loss of profits, revenue, earnings or revenue not specifically provided for in the definition of **incremental generation costs**;
- (d) raw material, fuel, processing, production, manufacturing or industrial costs of any nature which are not directly related to the **source asset**’s participation in the energy market;
- (e) fixed costs; or
- (f) costs or claims that the claimant could otherwise have mitigated through all reasonable efforts.

Cost Recovery

12 The **ISO** must treat the **incremental generation costs** paid to a claimant for an approved claim under subsection 11(6) as an **ancillary services** cost.

Timely Information from Legal Owner

13 A **legal owner** of a **source asset** must, if it is not the **pool participant** for that **source asset**, provide such timely and complete information to the **pool participant** for such **source asset** to enable the **pool participant** to comply with its obligations under subsections 3, 4 and 5.

Revision History

Date	Description
<u>2022-XX-XX</u>	<u>Revised subsection 7(2) by changing the first instance of "assessments" to "forecast"</u>
2020-09-16	Addition of timing requirement for submission of delay forced outages in subsection 4. Revised subsection 4 title to Delayed Forced Outage Notification Requirements. Revised subsection 5 title to Automatic Forced Outage Notification Requirements. Administrative changes.
2015-04-01	The words “excluding a wind facility” were deleted from subsection 1(a).

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Coordination



2014-07-02	Initial release
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Applicability

- 1** Section 306.7 applies to:
- (a) a **pool participant** with a generating **source asset** with a **maximum capability** of five (5) MW or higher;
 - (b) the **legal owner** of a **source asset** described in subsection 1(a); and
 - (c) the **ISO**.

Requirements

General

- 2** A **pool participant** must, for any **mothball outage** that results or will result in a change in **available capability** of five (5) MW or greater:
- (a) comply with the notification requirements in subsection 3; and
 - (b) comply with the attestation requirements in subsection 4.

Mothball Outage Notification Requirements

- 3(1)** A **pool participant** must, in respect of any **mothball outage**, submit to the **ISO**:
- (a) the dates, times, durations and impact to MW capability for the **mothball outage**;
 - (b) a designation of the **mothball outage** as “Derate-Planned” or “Outage-Planned”;
 - (c) the minimum time, which must be no more than six (6) months, that is required for the generating **source asset** to return to full capability if issued a **directive** by the **ISO** in accordance with subsection 3; and
 - (d) a list of contact **persons** who are in a position of authority to resolve with the **ISO** any issues or concerns regarding the **mothball outage**.
- (2)** A **pool participant** must, by the first **day** of every **month** after the date of **energization**, submit the information set out in subsection 3(1) to the **ISO** related to **mothball outages** that, as of the time of the submission, are planned to occur at any time within the next twenty-four (24) **months**.
- (3)** A **pool participant** must, with respect to:
- (a) any revisions to the information submitted to the **ISO** under subsection 3(1); or
 - (b) a **mothball outage** that is not included in the submission set out in subsection 3(2);
- submit such information or **mothball outage** as soon as practicable but no later than three (3) **months** prior to the **day** the revision takes effect or the **mothball outage** is to start, unless otherwise agreed to by the **ISO** in writing.
- (4)** A **pool participant** must submit information required to be provided to the **ISO** pursuant to this subsection 3 through the Energy Trading System, except that the information required to be provided in accordance with subsection 3(1)(c) and (d) is to be provided directly to the **ISO**, in writing.

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Attestation

4(1) A **pool participant** must, if a notification is provided to the **ISO** pursuant to subsections 3(1), or 3(3)(a) where such notification results in an extension to the duration or increase in MW of the **mothball outage** originally submitted pursuant to subsection 3(1), provide an attestation to the **ISO** from a corporate officer of the **pool participant** of the **source asset** that:

- (a) based on its reasonable assessment of forecast market prices and market conditions at the time the attestation is provided, such forecast market prices and market conditions are insufficient to recover avoidable costs for the **source asset** for the duration of the **mothball outage**; and
- (b) the **mothball outage** will be cancelled if, based on its reasonable assessment of forecast market prices and market conditions, such forecast market prices and market conditions become sufficient to recover avoidable costs for the **source asset** for the remaining duration of the **mothball outage**.

4(2) A **pool participant** must provide an attestation in accordance with subsection 4(1):

- (a) on the **day** that a notification is provided to the **ISO** pursuant to subsections 3(1) or 3(3)(a), if such notification is received after May 28, 2018; and
- (b) when the notification pursuant to subsections 3(1) or 3(3)(a) is provided to the **ISO** more than three (3) **months** prior to the **day** the **mothball outage** is planned to start, on the last **business day** that is three (3) **months** prior to the **day** the **mothball outage** is planned to start.

4(3) A **pool participant** must, if it is not the **legal owner** of the **source asset**, provide to the **ISO** on the **day** that the **pool participant** submits an attestation in accordance with subsection 4(2), an attestation from the **legal owner** of a **source asset** that the avoidable costs provided to the **pool participant** in accordance with subsection 8(a) are accurate.

Cancellation of Mothball Outage

5(1) A **pool participant** must provide the **ISO** with a minimum of three (3) **months'** written notice prior to cancelling a **mothball outage**.

(2) A **pool participant** must cancel a **mothball outage** no later than twenty-four (24) months after the date of commencement of the **mothball outage**, unless otherwise agreed to by the **ISO**, in writing.

(3) A **pool participant** must take one of the following actions upon cancelling a mothball outage:

- (a) return the generating **source asset** to service; or
- (b) terminate the **supply transmission service** contract for the generating **source asset**.

(4) A **pool participant** must not:

- (a) schedule a **planned outage** immediately after a **mothball outage**; or
- (b) schedule a **mothball outage** less than three (3) months after a previous **mothball outage**.

Authority to Issue an Outage Cancellation Directive

6(1) The **ISO** may, if after:

- (a) completing the procedures set out in subsections 7(2) through 7(5) the **ISO** determines that

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there remains:

- (i) an immediate need on a short term basis for services provided by certain **source assets** to maintain the necessary level of **reliability** or **adequacy**, as the case may be; and
- (ii) a high probability that the situation will not be alleviated in a voluntary manner:
 - (A) by any **pool participants** amending or revising outage plans; or
 - (B) through the ordinary course operation of the market; and
- (b) taking into account the factors described in subsection 7(4) below,

issue a **directive** to cancel a **mothball outage**.

(2) The **ISO** must not issue a **directive** canceling a **mothball outage** without the authorization of the Chief Executive Officer of the **ISO** or his designee.

Mothball Outage Cancellation Procedure

7(1) The **ISO** must, in order to assist in determining whether to issue a **directive** canceling a **mothball outage**, **assessforecast** the adequacy of supply as described in subsection 2 of section 202.6 of the **ISO Rules**, *Adequacy of Supply*.

(2) The **ISO** must, prior to issuing a **directive** canceling a **mothball outage**, comply with the outage cancellation procedures described in subsection 7 of section 306.5 of the **ISO rules**, *Generation Outage Reporting and Coordination*.

(3) In performing the assessments described in section 306.5, the **ISO** must take into account all **mothball outage** plans submitted to the **ISO** under subsection 3 of this section 306.7.

(4) In addition to the factors set out in subsection 7(7) of subsection 306.5, the **ISO** must consider the length of time of any outage the **pool participant** has previously submitted to the **ISO** under the reporting requirements set out in this subsection 306.7 in its determination as to whether or not to issue a directive cancelling a **mothball outage**.

(5) Notwithstanding subsection 7(8) of section 306.5, the **ISO** may issue a **directive** cancelling a **mothball outage** at any time by providing notice equivalent to or greater than the minimum time that is required for the generating **source asset** to return to service provided under subsection 3(1)(c).

Timely Information from Legal Owner

8 A **legal owner** of a **source asset** must, if it is not the **pool participant** for that **source asset**:

- (a) provide such timely and complete information to the **pool participant** for such **source asset** to enable the **pool participant** to comply with its obligations under subsection 3, 4 and 5; and
- (b) provide an attestation to the **pool participant** from a corporate officer of the **legal owner** of such **source asset** to enable the **pool participant** to comply with its obligations under subsection 4(3).

Revision History

Date	Description
2022-XX-XX	Revised subsection 7(1) by changing "assess the adequacy of supply" to "forecast

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	<u>the adequacy of supply"</u>
2018-05-28	Addition of subsection 4 Amendment to subsection 8 Administrative amendments
2016-06-07	Initial release.