

**Development of Proposed
Amended Section 505.2 of the ISO
Rules, *Performance Criteria for
Refund of Generating Unit Owner's
Contribution* (“Section 505.2”)**

October 8, 2020

In accordance with its mandate to operate in the public interest, the AESO will be audio recording this Stakeholder session and making meeting minutes of the session available to the general public at www.aeso.ca. The accessibility of the session is important to ensure openness and transparency and to facilitate the participation of Stakeholders. Participation in this session is completely voluntary and subject to the terms of this notice.

The collection of personal information by the AESO for this session will be used for the purpose of capturing Stakeholder input for the development of the proposed amended Section 505.2. This information is collected in accordance with Section 33(c) of the *Freedom of Information and Protection of Privacy Act*. If you have any questions or concerns regarding how your information will be handled, please contact the Director, Information and Governance Services at 2500, 330 – 5th Avenue S.W., Calgary, Alberta, T2P 0L4, by telephone at 403-539-2528, or by email at privacy@aesocanada.com.

- The AESO's top priorities are the health and well-being of our employees and stakeholders and continuing to meet the electricity needs of all Albertans.
- All business meetings with external stakeholders will be via phone or webinar indefinitely (this includes stakeholder engagement sessions).
- Based on Stakeholder feedback, the AESO's own security assessment and the use of Zoom for governments, post-secondary institutions and other companies, the AESO has decided for now to continue using Zoom for our stakeholder engagements until such time that face-to-face engagements are allowed.
- The AESO will continue to monitor developments and provide updates to our stakeholders as necessary.
- For additional information, please visit the AESO website at www.aeso.ca and follow the path Stakeholder engagement > Covid-19.

Time	Agenda Item
9.00 - 9.10	Introductions and Session Overview
9.10 - 9.15	ISO Rule Development Process Overview
9.15 - 9.30	Generating Unit Owner's Contribution Background <ul style="list-style-type: none">• Transmission Regulation• ISO tariff• ISO Rule• Contributions and refunds to date
9.30 - 9.40	ISO Tariff Changes to Generating Unit Owner's Contribution
9.40 - 10.00	Implication of ISO Tariff Changes on ISO Rule <ul style="list-style-type: none">• Generating Unit without Rate STS, <i>Supply Transmission Service</i>, Contract• Generating Unit of 1 to 5 MW Nameplate Capacity with Sufficient Metering
10.00 - 10.45	ISO Rule Changes to Align with ISO Tariff <ul style="list-style-type: none">• Preliminary evaluation
10.45 - 11.00	Next Steps

Introduction and Session Overview



- Alberta Department of Energy
- Capital Power
- Capstone Infrastructure Corporation
- Customized Energy Solutions
- DePal Consulting Limited
- ENMAX Corporation
- Heartland Generation Ltd.
- Lionstooth Energy
- PGSC
- Saturn Power Inc.
- Stantec Consulting Ltd.
- Suncor Energy Inc.
- TransAlta Corporation
- TransCanada Energy

The background of the slide is a blue-tinted photograph of two hands shaking in a firm grip. The hands are positioned in the center-left of the frame. The background also features a faint, white, geometric network pattern of lines and dots, and a blurred cityscape at the bottom.

OUR ENGAGEMENT PRINCIPLES

Inclusive and Accessible

Strategic and Coordinated

Transparent and Timely

Customized and Meaningful

- The participation of everyone is critical to the engagement process. To ensure everyone has the opportunity to participate, we ask you to:
 - Listen to understand others' perspectives
 - Disagree respectfully
 - Balance airtime fairly
 - Keep an open mind

- Meeting minutes will be prepared by the AESO with the help of a minute-taking software program.
- Organization names will be used to identify contributions.
- Draft meeting minutes will be circulated to attendees for review and the final version will be posted to the AESO website.

- All attendees will join the webinar in listen-only mode and the host will have attendee cameras disabled and microphones muted.
- When asking or typing in a question, **please state your first and last name and the organization you work for** to ensure your comments are attributed to your company.
- Two ways to ask questions during the Q&A portion if you are accessing the webinar using your computer or smartphone.
 - Raise your “hand”: The host will be notified that you have raised your hand and will open up your microphone when there is an opportunity to do so. Wait until the host opens up your microphone.
 - Type your question into the Q&A window: You are also able to up-vote questions that have been already asked. The host will see your questions and the up-votes and will have your question answered when there is an opportunity to do so.

- Using a 2-in-1/PC/MAC Computer
 - Hover your cursor over the bottom area of the Zoom app and the Controls will appear.
 - Click “Raise Hand”.
 - When the host opens your mic, your name will appear on the screen but your camera will remain turned off.
 - Click “Lower Hand” to lower it if needed.
 - Click the “Q&A” button and typing them in.
- Using Smartphone
 - Tap “Raise Hand”.
 - When the host opens your mic, your name will appear on the screen but your camera will remain turned off.
 - Tap “Lower Hand” to lower it if needed.
 - You can also ask questions by tapping the “Q&A” button and typing them in.

- If you are accessing the webinar via conference call
 - Press *9 on your keypad to Raise your hand.
 - When the host opens your mic, your phone number will appear on the screen, but your camera will remain turned off.
 - Unmute your microphone by pressing *6 and then you can ask your question.
- Phone controls for attendees
 - Press *9 Click phone's dial pad. The host will be notified that you've raised your hand.
 - To toggle between mute and unmute, on your phone's dial pad, press *6.

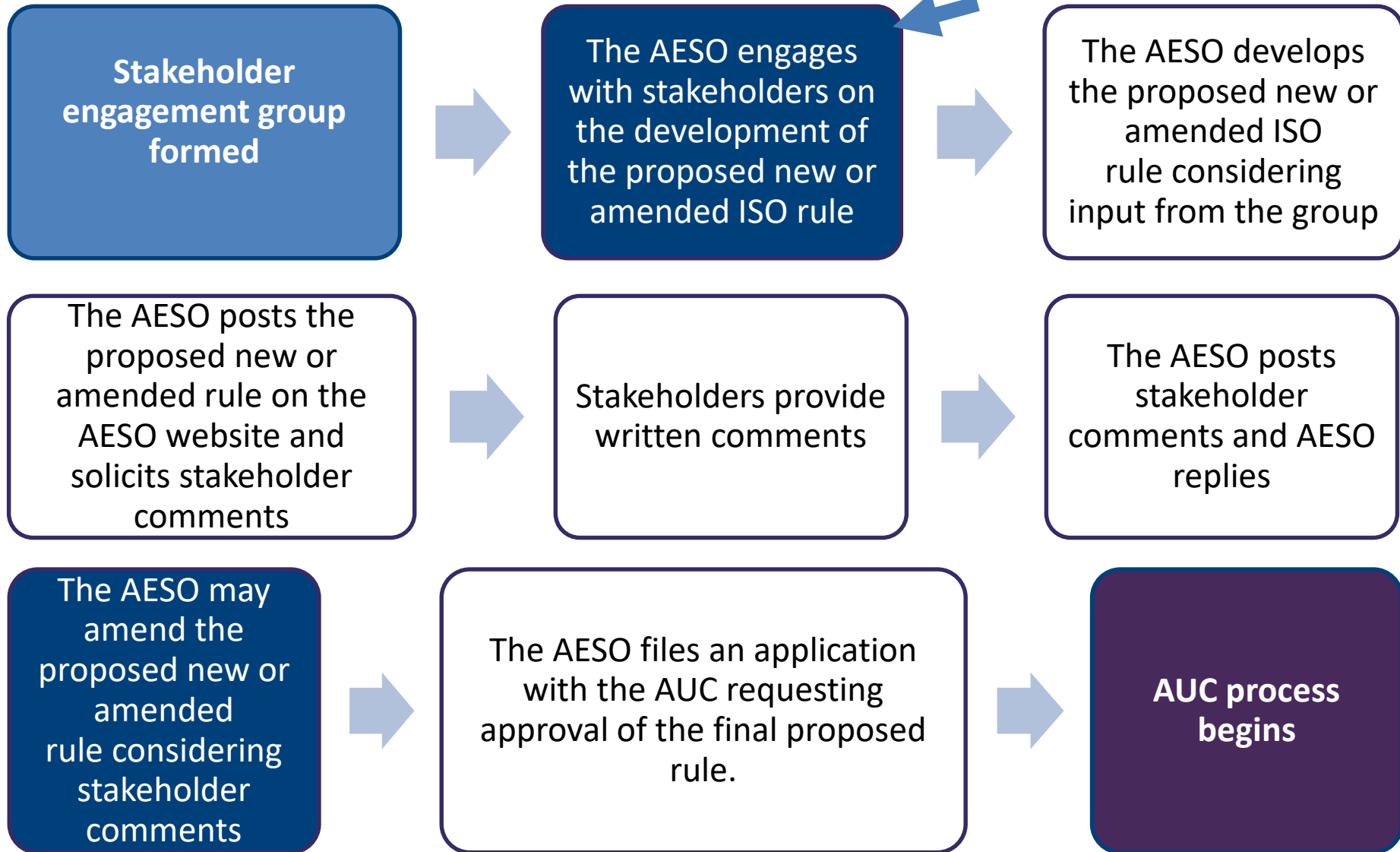
ISO Rule Development Process Overview

ISO Rules Development

- Section 20 of the *Electric Utilities Act* grants authority to the AESO to develop ISO rules.
- AUC Rule 017, *Procedures and Process for Development of ISO Rules and Filing of ISO Rules with the Alberta Utilities Commission*, sets out the requirements for the development of ISO rules, including:
 - Stakeholder engagement requirements; and
 - AUC application requirements.

Section 505.2 Consultation Status

Section 505.2 is now here





Developing Amendments to Section 505.2

- Develop a common understanding of reasons for proposed revisions to Section 505.2
- Review proposed revisions
- Provide Stakeholders with an opportunity to share feedback
- Discuss next steps

Generating Unit Owner's Contribution (GUOC) Objectives

1. Provide a siting signal to generators to site in areas where they can provide load the most benefit
 - Section 10, *Generating Unit Owner's Contribution*, of the current ISO tariff (Section 7 in proposed ISO tariff)
2. Refund the Generating Unit Owner Contribution (GUOC) to generators that operate satisfactorily
 - Section 10 of the ISO tariff (Section 7 in proposed ISO tariff); and
 - Rule 505.2, *Performance Criteria for Refund of GUOC*
3. Ensure incentives for generators to provide accurate MC information at time of contract execution (as per AUC Decision 22942-D02-2019)

Transmission Development Policy Paper - Alberta Energy - November 2003

- One of the primary intents of the System Contribution Payment (SCP) is to act as a long-term siting signal for new generators.
- Generators who fail to operate.. satisfactorily.. will not obtain a refund, thereby reasonably protecting load customers from stranded transmission costs

Summary of Contributions and Refunds from 2006 to end of 2019

- Generating Unit Owners' Contributions totaling approximately \$96 million since 2006
 - \$44 million refunded to generators
 - \$ 3 million has been forfeited after performance assessments
 - \$49 million remain to be assessed and refunded
- About 40 generators have paid GUOC
 - A mix of thermal units, renewable units and units co-located with load
 - Two thirds of units co-located with load offer into the markets on net basis
 - Remaining 1/3 offer into the markets on gross basis

Current ISO Tariff

1 Section 10 of the **ISO tariff** applies to:

- (a) a **market participant**:
 - (i) who has requested or is receiving **system access service** under Rate STS, *Supply Transmission Service*;
 - (ii) whose agreement for **system access service** will be or was signed on or after January 1, 2006; and
 - (iii) whose Rate STS contract capacity will be or is greater than one (1) MW;

Proposed ISO Tariff

- 7.1 This section of the ISO tariff applies to the owner (as that term is defined in the Act) of a generating facility, being a generating unit or an aggregated generating facility:
- (a) with a maximum capability that is or will be greater than 1 MW;
 - (b) that is or will be connected to the transmission system or an electric distribution system on or after January 1, 2006; and
 - (c) for which revenue metering equipment to measure hourly metered energy has been installed.

Proposed ISO Tariff Changes Impact on GUOC Performance Assessment

- Extends application to any new unit connecting to the electric system, including those with a maximum capability over 1 MW, as required by the *Transmission Regulation*.
 - No longer only applicable to units requesting Rate STS, *Supply Transmission Service*, system access service
 - Exempts units with maximum capability of 1 to 5 MW from paying GUOC if they do not have revenue metering



Impacts on Section 505.2 (Performance Assessment)

How to assess performance of new units that do not have an associated 1-to-1 Rate STS contract

*1-to-1 means 1 generator = 1 Rate STS Contract

- Until the new provisions come into effect, the GUOC payment will be determined in accordance with the current ISO tariff
- GUOC paid before the proposed ISO tariff provisions are effective may require grandfathering language to ensure that generators are aware of performance criteria at the time of GUOC payment

- Require changes as soon as possible to align with effective date of proposed ISO tariff in order to ensure generators have clarity on performance criteria to maximize GUOC refund
 - Proposed ISO tariff changes may be effective December 1, 2020 (dependent on timing of AUC decision)
- The AESO will only consider expediting rule changes as necessary to align with the timing of the proposed ISO tariff revisions

1. Align Section 505.2 with proposed ISO tariff changes related to the GUOC:
 - How should performance of a unit that is not part of a 1-to-1 Rate STS contract be assessed?
2. Align GUOC refund criteria to ensure incentives for generators to provide accurate MC information at time of contract execution
3. Create efficiencies and performance assessment clarity for both the AESO and market participants while maintaining transparency
4. Ensure Section 505.2 performance assessments will apply to future types of generation with minimal future revisions

Current ISO Rule, Section 505.2

Unit Type	Size / Offer Basis	Measure	Average Hourly Availability Target
Wind and Hydro	All	Capacity factor (metered energy/Rate STS)	$\geq 25\%$
Solar	All	Capacity factor (metered energy/Rate STS)	$\geq 12\%$
Primarily intended to fully or partially service onsite industrial load	Offers on a gross basis	Availability factor (AC/MC)	$\Rightarrow 80\%$
	Offers on a net basis	(AC/Rate STS)	$\Rightarrow 80\%$
All other units	≥ 5 MW	Availability factor (AC/MC)	$\Rightarrow 80\%$
	1 - < 5 MW	Capacity factor (metered energy/Rate STS)	$\geq 25\%$

STS: supply transmission service, AC: available capability, MC: maximum capability

Proposed ISO tariff impact on Section 505.2

If no associated 1-to-1 Rate STS .



Unit Type	Size / Offer Basis	Measure	Average Hourly Availability Target
Wind and Hydro	All	Capacity factor (metered energy, Rate STS)	>= 25%
Solar	All	Capacity factor (metered energy, Rate STS)	>= 12%
Primarily intended to fully or partially service onsite industrial load	Offers on a gross basis	Availability factor (AC/MC)	=> 80%
	Offers on a net basis	(AC/Rate STS)	=> 80%
All other units	>= 5 MW	Availability factor (AC/MC)	=> 80%
	1 - <5 MW	Capacity factor (metered energy, Rate STS)	>= 25%

Will have associated Rate STS

Option 1: Simplify rule language to incorporate proposed ISO tariff changes

- Maintain current nature and structure, and revise language to address gaps
- Provide future flexibility
- AESO to continue hourly calculations
- Over contract assessment is eliminated for sites being assessed on MC (not Rate STS denominator)
- Use of 'critical MC' is to provide an incentive for generators, through the refund criteria, to provide accurate MC information at time of contract execution

Option 1: Changes Required for ISO Rule 505.2

Unit Type	Size / Offer Basis	Measure	Target
Wind and Hydro	All	Capacity factor (metered energy/MC)	>= 25%
Solar	All	Capacity factor (metered energy/MC)	>= 12%
Primarily intended to fully or partially service onsite industrial load	Offers on a gross basis	Availability factor (AC/MC)	=> 80%
	Offers on a net basis	(AC/Rate STS)	=> 80%
All other units	>= 5 MW	Availability factor (AC/MC)	=> 80%
	1 - <5 MW	Capacity factor (metered energy/MC)	>= 25%

Option 1: Simplify rule language to incorporate proposed ISO tariff changes

Sample draft language for Option 1

Availability Assessment for Wind, Solar or Run of River Hydro Generation and Generation with a Maximum Capability Less Than 5 MW

4 The **ISO** must calculate the availability assessment for a wind, solar, or run of river hydroelectric **generating unit** or an **aggregated generating facility**, an aggregated asset containing a wind, solar or run of river **generating unit** or **aggregated generating facility**, and a **generating unit** or **aggregated generating facility** with a **maximum capability** less than 5 MW, as follows:

- (a) identify the cumulative time-weighted hourly availability using the metered energy of the **generating unit** or **aggregated generating facility**, less any volumes dispatched for **operating reserve**, in relation to its critical **maximum capability**;
- (b) divide the value determined in subsection 4(a) by the number of hours in the year; and
- (c) determine the availability assessment for the generating unit or aggregated generating facility ... [*based on tables in existing rule*]

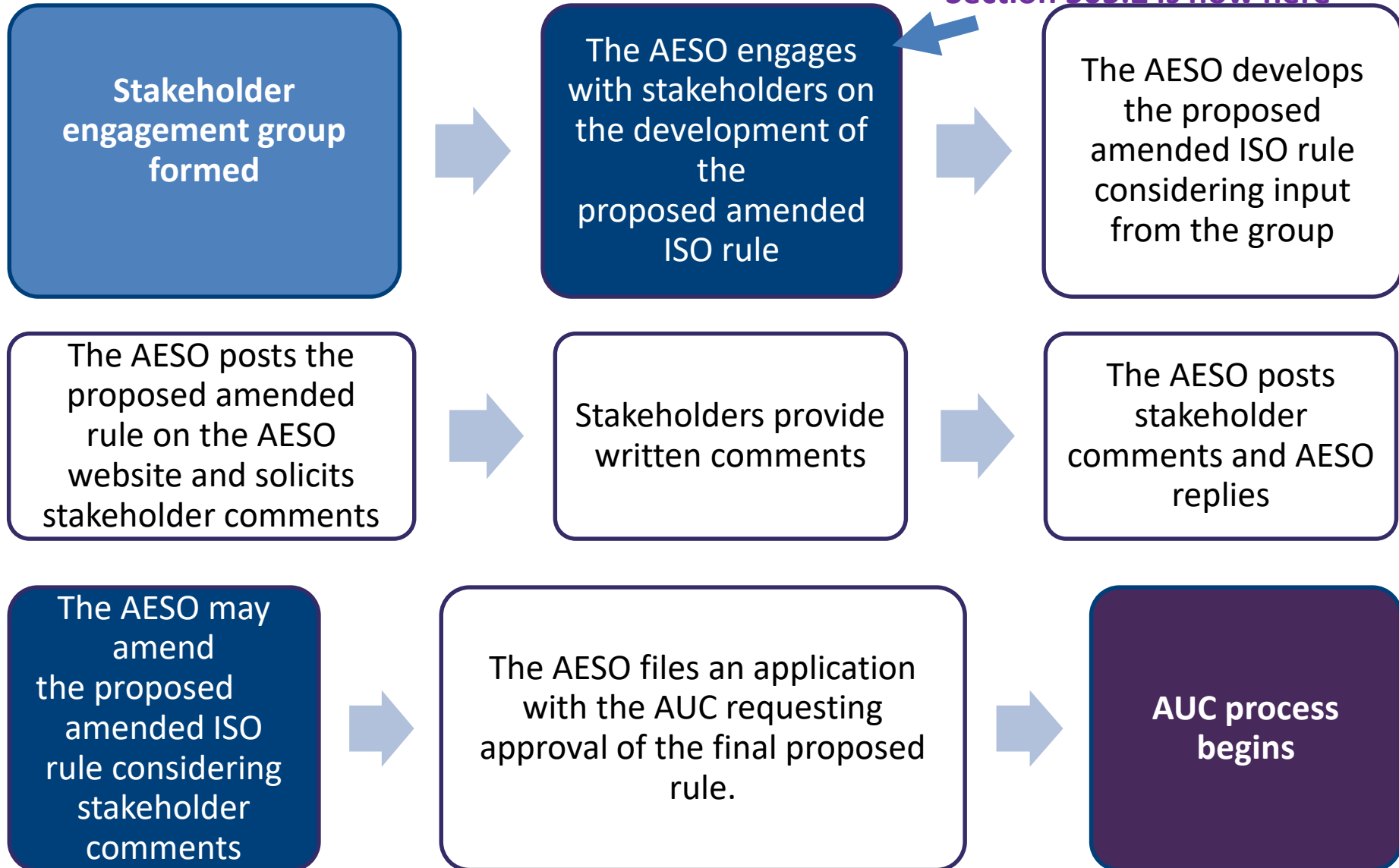
Option 2: Simplify rule language and methodology to incorporate proposed ISO tariff changes

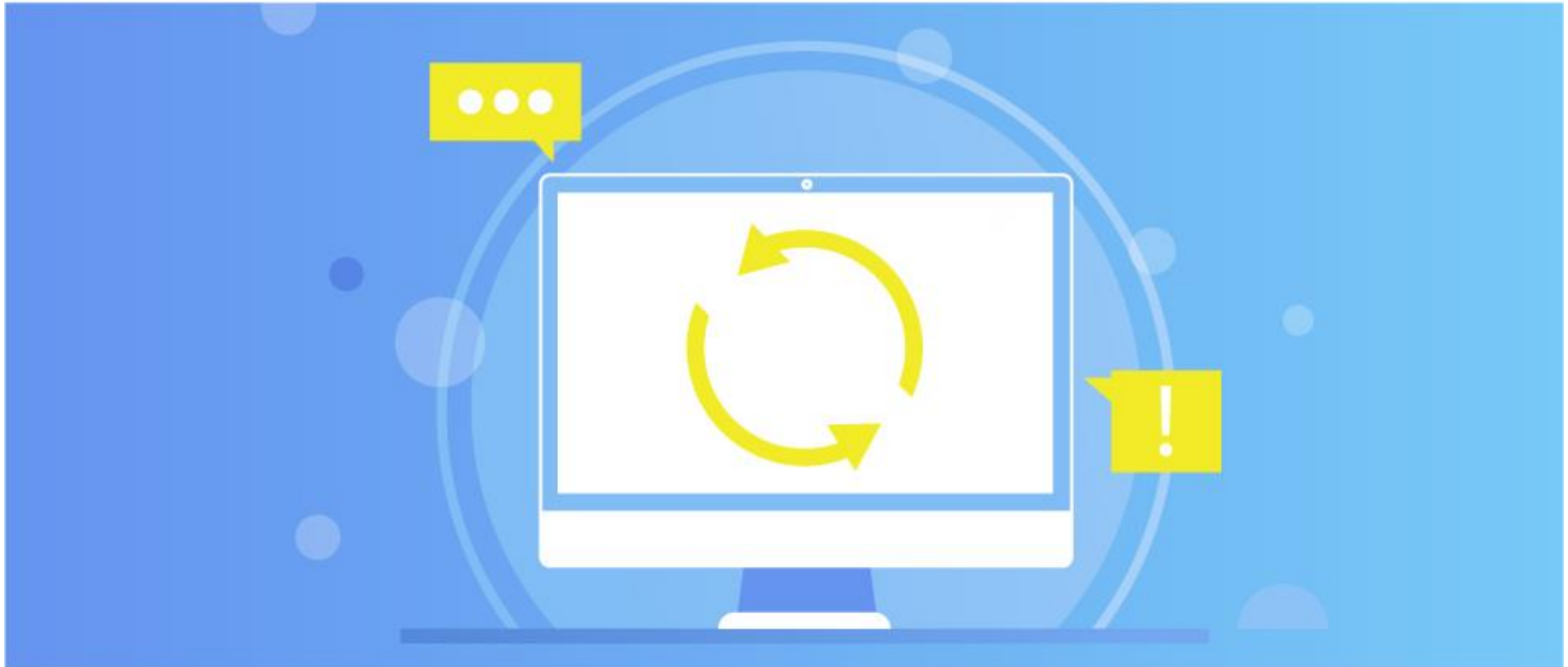
- Revise language to address gaps
- Simplified calculation
- Performance assessment is based on:
 1. If metered energy > 0 in year, 100% performance assessment \times [Maximum(1, current MC/critical MC)]; or
 2. If metered energy = 0 in year, 0% performance assessment
- Use of 'critical MC' is to provide an incentive for generators, through the refund criteria, to provide accurate MC information at time of contract execution
- Over-contract assessment will not apply to unit that has no associated Rate STS contract

- Incorporate changes resulting from Proposed ISO tariff?
- Refund the Generating Unit Owner Contribution (GUOC) to generators that operate satisfactorily?
- Align GUOC refund criteria to ensure incentives for generators to provide accurate MC information at time of contract execution?
- Create efficiencies and performance assessment clarity for both the AESO and market participants while maintaining transparency?
- Ensure Section 505.2 performance assessments can be applicable for future types of generation with minimal future revisions?
 - i.e. flexible and technology agnostic

Section 505.2 Consultation Next Steps

Section 505.2 is now here





- **Twitter:** @theAESO
- **Email:** rules_comments@aeso.ca
- **Website:** www.aeso.ca
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Thank you