April 18, 2019

To: The Market Surveillance Administrator, Stakeholders and Other Interested Parties

Re: Alberta Electric System Operator ("AESO") Reply to Stakeholder Comments – Proposed New and Amended ISO Rules:

1) **Proposed new Section 502.17 of the ISO Rules, *Voice Communication System Requirements* (" Section 502.17"); and**

2) **Proposed amendments to Section 502.4 of the ISO Rules, *Automated Dispatch and Messaging System and Voice Communication System Requirements* ("Section 502.4")**

(collectively referred to as the "new and amended ISO Rules")

On March 19, 2019, the AESO issued a Letter of Notice regarding the proposed new and amended ISO Rules and requesting stakeholder comments on the same.

AESO Replies to Stakeholder Comments

In accordance with section 6.5 of Alberta Utilities Commission ("Commission") Rule 017, the AESO is providing replies to stakeholder comments. The AESO's replies to comments, including the rationale or basis for the position of the AESO that explains why certain positions were rejected or accepted, are set out in the attached *Stakeholder Comment and AESO Replies Matrix.*

Application for Approval of the Final Proposed New and Amended ISO Rules

The AESO expects to submit its application for the proposed new and amended ISO Rules with the Commission in June 2019.

Attachments to AESO Reply Letter

The following documents are attached:

1. *Stakeholder Comments and AESO Replies Matrix* on the proposed new Section 502.17; and
2. *Stakeholder Comments and AESO Replies Matrix* on the proposed amended Section 502.4.

If you have any questions, please contact the undersigned.

Sincerely,

Melissa Mitchell-Moisson

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Attachments

Stakeholder Comments and AESO Replies Matrix

Proposed New Section 502.17 of the ISO Rules, *Voice Communication System Requirements* ("new Section 502.17")

Date of Request for Comment: March 19, 2019

Period of Comment: March 19, 2019 through April 3, 2019

Please provide your comments on the following (as set out in AUC Rule 017 s. 7.2(b-j)):

Item #		Stakeholder comments	AESO Replies
1	whether you are of the view that proposed new Section 502.17 relates to the capacity market and why or why not	**Altalink Management Ltd. ("AltaLink")** As the rule applies to market participates, it is AltaLink view that it relates to the capacity market.	The AESO acknowledges AltaLink's comment.
		ATCO Electric Ltd. ("AE") AE believes that this new rule would apply generally to all MP's, whether in a capacity market or not.	The AESO acknowledges AE's comment.
		ENMAX Corporation ("ENMAX") Section 502.17 does not appear to relate directly to the Capacity Market. The new rules are intended to ensure that there is reliable and redundant communication at all times between impacted parties. These rules should be applied equally to all generation and transmission facility owners to ensure system reliability and equal treatment to market participants.	The AESO acknowledges ENMAX's comment.
		Suncor Energy Inc. ("Suncor") Suncor has no comments on this item.	The AESO acknowledges Suncor's comment.

Item #		Stakeholder comments	AESO Replies
		TransAlta Corporation (“TransAlta”) No comment.	The AESO acknowledges TransAlta’s comment.
2	if the answer to item #1 is yes, whether you agree that proposed new Section 502.17 should or should not be in effect for a fixed term and why or why not	**Altalink Management Ltd. (“AltaLink”)** AltaLink’s view is a fixed term is inappropriate due to the nature of the infrastructure requirements and system expectations it implies.	The AESO acknowledges AltaLink’s comment.
		ATCO Electric Ltd. (“AE”) AE suggests that this should not be in a fixed term as 502.17 is about good industry practice and until an modification is required in the future to this new rule, no fixed term should apply.	The AESO acknowledges AE’s comment.
		ENMAX Corporation (“ENMAX”) Section 502.17 should not be in effect for a fixed term. There should be a requirement that is equally applied to all generation and transmission facility owners to ensure system reliability and equal treatment to market participants.	The AESO acknowledges ENMAX’s comment.
		Suncor Energy Inc. (“Suncor”) Suncor has no comments on this item.	The AESO acknowledges Suncor’s comment.
		TransAlta Corporation (“TransAlta”) TransAlta knows of no reason the proposed new Section 502.17 should be in effect for a fixed term.	The AESO acknowledges TransAlta’s comment.
3	whether you understand and agree with the objective or purpose of proposed new Section 502.17 and whether, in your view, proposed new Section 502.17 meets the objective or purpose	**Altalink Management Ltd. (“AltaLink”)** AltaLink understands the objective to achieve more robust and reliable voice communications and procedures for communicating between market participants. It is not clear to AltaLink whether this	The AESO acknowledges AltaLink’s comment.

Item #		Stakeholder comments	AESO Replies
		rule meets that objective. Please see the comment section below for more detail.	
		ATCO Electric Ltd. ("AE") AE agrees with objective	The AESO acknowledges AE's comment.
		ENMAX Corporation ("ENMAX") Agree with the objective and purpose of the new Section 502.17.	The AESO acknowledges ENMAX's comment.
		Suncor Energy Inc. ("Suncor") Suncor agrees that the objective or purpose of the proposed new Section 502.17.	The AESO acknowledges Suncor's comment.
		TransAlta Corporation ("TransAlta") In the March 19, 2019 Letter of Notice, the stated objective with respect to proposed new Section 502.17 is limited to combination of all voice communication requirements and accountabilities from Section 502.4 and NERC COM-001-3 in a single document. The proposed Section 502.17 meets that objective, however more stringent requirements are also being proposed.	The AESO acknowledges TransAlta's comment.
4	how, in your view, proposed new Section 502.17 affects the performance of the capacity market and the electricity market	**Altalink Management Ltd. ("AltaLink")** It is not clear to AltaLink how this rule affects the performance of the capacity market. Please see the comment section below for more detail.	The AESO acknowledges AltaLink's comment.
		ATCO Electric Ltd. ("AE") AE is not able to comment on the affects to performance of the capacity market, but believes this new rule is in keeping with good industry practice for the electricity market	The AESO acknowledges AE's comment.

Item #		Stakeholder comments	AESO Replies
		ENMAX Corporation ("ENMAX") Without adequate and reliable telecommunication standards, the reliability of generators participating in either a capacity or electricity market may be impacted.	The AESO acknowledges ENMAX's comment.
		Suncor Energy Inc. ("Suncor") Suncor has no comments on this item.	The AESO acknowledges Suncor's comment.
		TransAlta Corporation ("TransAlta") No comment.	The AESO acknowledges TransAlta's comment.
5	your views on any analysis conducted or commissioned by the AESO supporting proposed new Section 502.17	**Altalink Management Ltd. ("AltaLink")** AltaLink is unaware of any analysis on Section 502.17. AltaLink requests to be provided with any analysis.	The AESO does not have any data or analyses to provide in relation to the proposed new Section 502.17 of the ISO rules, *Voice Communication System Requirements* ("Section 502.17").
		ATCO Electric Ltd. ("AE") AE has questions regarding the new rule which are detailed at the bottom of this document.	The AESO acknowledges AE's comment.
		ENMAX Corporation ("ENMAX") No comment at this time.	The AESO acknowledges ENMAX's comment.
		Suncor Energy Inc. ("Suncor") Suncor has no comments on this item.	The AESO acknowledges Suncor's comment.
		TransAlta Corporation ("TransAlta") No comment.	The AESO acknowledges TransAlta's comment.
6	whether you agree with proposed new Section 502.17 taken together with all ISO rules and in	**Altalink Management Ltd. ("AltaLink")** AltaLink cannot agree at this time, clarification and further	The AESO acknowledges AltaLink's comment.

Item #		Stakeholder comments	AESO Replies
	light of the principle of a fair, efficient and openly competitive market	discussion is required. See the comment section below for more detail.	
		ATCO Electric Ltd. ("AE") AE agrees.	The AESO acknowledges AE's comment.
		ENMAX Corporation ("ENMAX") No association to FEOC.	The AESO acknowledges ENMAX's comment.
		Suncor Energy Inc. ("Suncor") Suncor agrees with the proposed new Section 502.17 taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market.	The AESO acknowledges Suncor's comment.
		TransAlta Corporation ("TransAlta") No comment.	The AESO acknowledges TransAlta's comment.
7	whether you would suggest any alternatives to proposed new Section 502.17	**Altalink Management Ltd. ("AltaLink")** AltaLink suggests additional consultation and planning meetings with the relevant stakeholders is required. Consultation should cover potential alternatives, clarifications, and guidelines as indicated in the comment section below. There is a need for further discussion and clarification of the expectations and approach to implementation.	The AESO is of the opinion that sufficient consultation and planning meetings were conducted. Specfically: 1. the AESO met with the Telecommunication Work Group on March 14, 2018 and met via conference call on November 20, 2018, to discuss the aspects of the New and Amended ISO Rules; 2. the AESO hosted two conference calls with the Telecommunication Work Group and interested members of the Alberta Reliability Committee Discussion Group to review a working draft of the proposed new Section 502.17 and to seek feedback. The conference call sessions occurred on May 24, 2018 and May 30, 2018; and 3. the Alberta Reliability Committee Discussion Group discussed the details of the proposed new Section 502.17 and proposed amended Section 502.4 at a meeting on May 2, 2018.

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		ATCO Electric Ltd. ("AE") AE has questions regarding the new rule which are detailed at the bottom of this document.	The AESO acknowledges AE's comment.
		ENMAX Corporation ("ENMAX") Please refer to comments on page 3.	The AESO acknowledges ENMAX's comment.
		Suncor Energy Inc. ("Suncor") The AESO may want to identify each Market Participant who needs to comply with this Rule based on the criticality.	While the AESO could structure the proposed new Section 502.17 to more directly address the criticality of facilities, the AESO is of the opinion that its current approach to applicability is appropriate and consistent with how it has drafted other technical ISO rules.
		TransAlta Corporation ("TransAlta") Whereas existing Section 502.4 does not specify a minimum duration for which backup voice communication equipment must remain operational in the event of an extended power outage, proposed Section 502.17 section 9(1) specifies a duration of 36 hours. TransAlta requests the AESO survey market participants to confirm such a requirement is reasonable and achieveable. Amongst other things, factors outside the control of a market participant may impact their ability to meet the requirement.	The AESO is of the opinion that 36 hours is not a long time during a major restoration event. Communication with the legal owner of a generating unit is critical to restoration efforts and although longer times were considered, 36 hours was selected as a balanced approach. The requirement in question applies only to the "backup voice communication equipment located within its facilities" so a market participant is not responsible for equipment outside its control and backup power is required to a limited amount of equipment.
8	if the answer to item #1 is yes, whether you agree that proposed new Section 502.17 supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	**Altalink Management Ltd. ("AltaLink")** AltaLink is not clear on the expectations and whether a cost benefit analysis was done on this approach. Therefore it cannot determine if this rule is aligned with a reasonable cost impact. Please see the comment section below for more detail.	The AESO acknowledges AltaLink's comment.

Item #		Stakeholder comments	AESO Replies
		ATCO Electric Ltd. (“AE”) No comment	The AESO acknowledges AE’s comment.
		ENMAX Corporation (“ENMAX”) As noted above, Section 502.17 does not appear to directly relate to the Capacity Market	The AESO acknowledges ENMAX’s comment.
		Suncor Energy Inc. (“Suncor”) Suncor has no comments on this item.	The AESO acknowledges Suncor’s comment.
		TransAlta Corporation (“TransAlta”) No comment.	The AESO acknowledges TransAlta’s comment.
9	whether you agree that proposed new Section 502.17 supports the public interest and why or why not	**Altalink Management Ltd. (“AltaLink”)** AltaLink is unable to make this determination. AltaLink requires further clarification and discussion about the content of the new rule. Please see the comment section below for more detail.	The AESO acknowledges AltaLink’s comment.
		ATCO Electric Ltd. (“AE”) AE agrees	The AESO acknowledges AE’s comment.
		ENMAX Corporation (“ENMAX”) Agree, as it ensures that adequate communication is in place, specifically in events that impact the reliability of the AIES.	The AESO acknowledges ENMAX’s comment.
		Suncor Energy Inc. (“Suncor”) Suncor agrees that the proposed rule supports the public interest.	The AESO acknowledges Suncor’s comment.
		TransAlta Corporation (“TransAlta”) No comment.	The AESO acknowledges TransAlta’s comment.

10	whether you have any additional comments	**Altalink Management Ltd. ("AltaLink")** AltaLink considers the new proposed section 502.17 to be considerably more specific, prescriptive, operationally onerous, and financially impactful than the existing COM-001 and COM-002. In AltaLink's view, there is considerable ambiguity around expectations, roles, and responsibilities. This will prevent successful adoption of this rule in its current form in the timeline proposed. There is also potential for large amounts of new infrastructure, new contracts, and resourcing and technology changes that require careful planning and coordination internally and among market participants prior to implementation. This may result in significant costs for market participants including AltaLink. Given these concerns, in AltaLink's view, the time for implementation is unreasonable. Some of the primary areas of concern are: 1. The concept of an "orderwire". This term is obsolete and warrants a formal definition of the technological and operational requirements associated with this service. AltaLink assumes for the purposes of these comments that this means a wholly market participant/ISO owned	While the AESO agrees that the proposed new Section 502.17 may be viewed as more specific and prescriptive, the AESO is of the opinion that those changes are reasonable and warranted as they address an important gap in current emergency preparedness. The AESO disagrees that the proposed new Section 502.17 is "considerably more…operationally onerous, and financially impactful than the existing COM-001 and COM-002". The proposed new Section 502.17 leverages existing equipment and services in place today. The AESO further disagrees that "there is considerable ambiguity around expectations, roles, and responsibilities". The AESO notes: a) that the proposed new Section 502.17 includes the existing voice communication requirements taken from Section 502.4 of the ISO rules, *Automated Dispatch and Messaging System and Voice Communication System Requirements* ("Section 502.4") and Alberta reliability standard COM-001, *Telecommunications*; and b) that the 9 months outlined in subsection 3 of the proposed new Section 502.17 starts after the ISO rule becomes effective, providing upwards of 18 months (24 months in some cases) to become compliant. The AESO proposes the effective date be April 1, 2020. The AESO is of the opinion that this proposed effective date along with the timelines set out in subsection 3 provide a reasonable period for successful implementation of the requirements. 1. The AESO used the term "orderwire" in the proposed new Section 502.17 to align with the existing Section 502.4. The AESO is of the opinion that "orderwire" is a generally understood term in Alberta. As a result, the AESO does not agree that a formal definition is needed. However, the

		and operated voice system and supporting infrastructure. AltaLink requests clarification on this term. For example, would AltaLink operated leased dark fiber be considered suitable infrastructure for an orderwire service? 2. The roles and responsibilities around voice system operation, system support infrastructure sharing and demarcation, and central coordination as it relates to this rule. 3. The level of central coordination, system management, classification inventory of market participants, call lists, etc. that would be performed or maintained by the AESO versus each individual market participant. 4. Considerations around infrastructure sharing and cost implications, market based fee structures for any lease or services provided between market participants and the impact of regulated versus non-regulated businesses, contractual obligations and Service Level Agreements.	AESO plans to add additional detail to the related information document. a. AltaLink-operated leased dark fiber assets are considered suitable infrastructure for an orderwire service assuming all active telecommunication equipment, such as routers, radio, and batteries, are controlled by the market participant. 2. The AESO is unclear about the specific concern. Legal owners of a transmission facility, such as AltaLink, already operate and support a voice communication system which connects with and carries voice communications for other market participants. The expectation does not change and the market participants remain responsible for developing the necessary interconnections and joint-use agreements. 3. The architecture design is outside the scope of the proposed new Section 502.17. However, the most likely architecture would have legal owners of generating units and legal owners of an electric distribution system connecting to the legal owner of a transmission facility that would then connect to the AESO. The legal owner of a transmission facility would forward calls to and from the AESO from the legal owner of a generating unit and the legal owner of an electricdistribution system. The AESO notes that the alternative of having the AESO as a central hub for all market participants would increase the amount of infrastructure travelled by the majority of calls and present a bigger point of failure. 4. There has been discussion on this topic but the specifics are outside the scope of the ISO rule. The AESO expects that the necessary joint-use agreements are managed by the market participants. The AESO considers the voice communications to be necessary for the operation of the electrical system and expects them to be carried in the same manner as other electrical system services and the voice communications that market participants already carry.

		5. The survey above references analysis completed by the AESO. AltaLink would like to understand the cost benefit analysis associated with an orderwire service versus the risk it is intended to mitigate, versus for example an alternate backup voice option like satellite phone. Assuming there will be significant capital spending associated with the implementation of this rule, AltaLink requests the risk evaluation that led to the requirement of an orderwire service between certain types of market participants. 6. AltaLink requests clarification of “no single points of failure” and the extent of that requirement’s applicability. For example, if the cabling for AltaLink’s voice services all use the same service provider owned conduit to enter the building, is that conduit a single point of failure and therefore not compliant, or is this requirement only for the voice system itself and not supporting infrastructure.	5. Question 5 above is a template question derived from the requirements of AUC Rule 017. It refers to “any” analysis conducted or commissioned by the AESO. In this case, there is no formal analysis. However, as outlined in stakeholder discussions on the proposed new Section 502.17, the ISO rule changes address a gap and vulnerability in preparedness in the event of the blackout or major outage event. The move away and restriction of satellite phone for some market participants is being done because it is an ineffective backup for a large numbers of users, and the added voice latency and connection time degrades its effectiveness. Furthermore, voice communications are a critical part of any restoration or event recovery as seen in example events across North America. In addition to the public safety considerations for the effective restoration of electricity in an emergency, the costs associated with any blackout or extended outage in Alberta is understood to quickly reach the million and billion dollar range. The AESO notes that most market participants required to use orderwire under the proposed new Section 502.17 already use orderwire today. The AESO and most legal owners of a transmission system already have and support the necessary voice communication systems, and the core telecommunication infrastruction already exists for the purposes of operating the electrical system. 6. The AESO intends that “no common single point of failure” between the primary and backup voice systems applies to the following: a. all the phones and supporting telecommunication equipment (e.g., routers/switches) within the market participant’s facilities. Redundant equipment is not considered a common single point

			of failure; and b. the telecommunication infrastructure and network of service providers (i.e., telco). A land line and wireless voice communication from the same provider more than likely have a common point of failure. In regards to cable runs, conduit, or other elements where no credible point of failure likely exists, the AESO expects market participants to exercise the judgment required by good electric industry practice.
		ATCO Electric Ltd. ("AE") 7. Can the AESO give their definition of a Utility Orderwire? 8. Are there different order wire systems used within Alberta? If yes, would AESO be expecting MP to install a certain system? If there are multiple systems available and AESO does not specify, AE's concern would be that they must be capable of communicating with each other. 9. Section 5(3)(a) – Can the AESO please explain the term 'direct access' as this is not a defined term and AE wants to ensure a common understanding? 10. Section 5(3)(b) – Can the AESO please give an example of a system that is 'degraded' so AE can understand if our system meets the criteria. 11. Section 5(6) - What Sat phone system is the AESO using? 12. Section 6(1) - If there is more than one Sat phone system available, how will the AESO ensure that MP's can	7. Please refer to AESO Reply 1. 8. Different vendors are certainly used within Alberta for the purposes of order wire systems. The AESO does not require a specific system and market participants must coordinate between different systems themselves. In most cases, standard protocols should enable this exchange. In the worse case, the exchange of an analog voice circuit is possible with available hardware and converters. 9. Direct access refers to the phone number being reached without going through reception or an automated attendant. 10. Two examples of a system that is "degraded" would be: (a) using the same phone line for a fax or other dial-up connection degrading the phones availability; and (b) operating a Voice over Internet Protocol ("VoIP") service over a constrained data connection that results in intermittent voice packet loss when other data traffic introduces too much jitter or overloads the connection. 11. The AESO uses the MSAT and Iridium satellite networks for telephony services. 12. The requirements set out in subsections 5(6) and 6(3)(a)

		communicate with each other or does the AESO have a path that can be used to link the systems? Has this question been explored by AESO as there could be a scenario where a MP uses a sat phone as a backup communication system and another MP only uses a sat phone as an alternate communciation system.	state that a common satellite network system must be used for all required satellite phone connections. Agreement on what systems will ultimately be supported will be negotiated between the relevant parties. Multiple satellite network systems are already supported within the control centres for the AESO and some legal owners of a transmission system. Multiple satellite network systems are likely to be available to minimize disruption and there are no plans for a link between systems. The AESO and the legal ownwer of transmission facilities, as the central hubs for these connections, are expected to accommodate, where reasonable, the satellite network systems used by multiple market participants connecting to them.
		13. Section 9(2) - If the backup voice communication path goes through other MP's facilities and their 72 hr minimum requirement is not be achievable, would AESO be willing to work with the MP on an alternate minimum time solution?	13. At present, the proposed new Section 502.17 does not provide authority for a waiver or variance. However, the AESO anticipates that such authority will be in place prior to required compliance with the proposed new Section 502.17 as a result of the current stakeholder consultation on the development of a proposed new ISO rule related to waivers and variances ("Waivers and Variance Rule"). Further details of the consultation on the proposed new Waivers and Variances Rule are available on the AESO website on the stakeholder engagement page.
		14. Section 11 In regards to the requirement to initiate or coordinate action to repair within 2 hrs of becoming aware of the disruption or loss of the backup communication system, AE would like to propose changing the 2 hrs to 'the next business day'.	14. The AESO intends to keep the 2 hours in subsection 11 but will provide clarification in the information document that "initiate or coordinate action to repair" allows for an email and/or phone message to the responsible system maintainer who may respond the next business day.
		15. Section 6(5) Where there is a new MP in AE's service terriority, who has the responsibility and cost burden to get the new MP's primary and backup system communicating with AE if the new MP has chosen systems that are not compatible between them?	15. Market participants are required to comply with the ISO rules as applicable. The AESO does not intend to address issues of cost in the proposed new Section 502.17. Please refer to AESO Reply 4.
		16. For current MP's that connect to AE's service territory and do not have an order wire service, will AESO be required to issue a direct assign to have this installed?	16. All applicable market participants are required to comply with the ISO rules. The AESO does not intend to issue any

			direct assigns in relation to such compliance.
		17. In regards to Appendix 2 - Can AESO give an example of a MP requiring a (P) as primary communication and a (BKD) as the backup having a common point of failure? An example would be a under 50mw generator requiring a P and chose to have a BKD as a backup.	17. Please refer to AESO Reply 6.
		18. In regards to Appendix 2 – Example - TFO has P as primary and OW as backup. Generator has P as primary and BKD as backup. Should both Primary's fail, how do these MP's communicate with each other? We are under the impression that an order wire cannot communicate with a backup direct access telephone. AE is requesting AESO to comment if this is a potential risk.	18. The AESO agrees this scenario does present some risk but considers the risk to be acceptable. The risk may be mitigated by good electric industry practice including one or both of having multiple commercial phone providers based on business and reliability needs, and leveraging the satellite phone systems to reach the phone numbers for the backup direct access telephone from the control room ("BKD"). In addition, while the AESO does not expect market participants to provide external links to their orderwire system, it notes it is technically possible.
		19. Section 5(d) If an Interconnected Transmission Operator connected to Alberta does not have an orderwire service, what it the expectation of an Alberta TFO?	19. If an adjacent interconnected transmission operator directly connected to Alberta does not have an orderwire service then subsection 6(2) can be considered. Where possible though, the AESO's preference for major interconnections is orderwire.
		ENMAX Corporation ("ENMAX") ENMAX requests further clarification from the AESO on the following sections contained in rule 502.17:	
		20. Clarity required on whether cell phones are acceptable as backup.	20. Cell phones are acceptable when permitted by Table 1 or Table 2. However, the requirement to have no common single point of failure with the primary, outside of the prescribed variances, still applies.
		21. Subsection 3(1): The 9 months timeline for the operator of a transmission facility should be extended to 15 months as it may be necessary to procure infrastructure.	21. Subsection 3(1) provides 9 months after the proposed new Section 502.17 becomes effective. The AESO proposes the effective date be April 1, 2020 which will provide market participants more than 18 months from the date of the application for approval of the ISO rule to become

		22. <u>Subsections 8(2) and 8(5):</u> Subsections 8(2) and 8(5) give minimum required availability for the primary and backup voice communication systems. Since ENMAX's phone and internet lines are managed by a third party, it is ENMAX's understanding that reports from the third party would be an acceptable form of evidence for demonstrating compliance to subsections 8(2) and 8(5) of 502.17. Relying on third party phone and internet providers is standard practice and having a firm commitment to uptime performance is not easily obtained. While ENMAX sets reasonable assurances for uptime as part of its contract with the third party, ENMAX also places an onus on the third party to ensure that it provides the services it has been contracted for. 23. <u>Appendix 1 and 2:</u> ENMAX requires clarity on what is meant by BKD? While Appendix 1 and 2 define BKD as "*A backup direct access telephone connection from the control room*", it is not clear what types of phones fall into this category.	compliant. The AESO is of the opinion this is a reasonable timeframe. 22. The AESO is of the opinion that reports containing relevant and sufficient information are an acceptable form of evidence for demonstrating compliance with subsections 8(2) and 8(5). It is irrelevant which entity generates them. 23. BKD is another commercial direct access telephone connection similar to the primary but without the conference call requirements.
		<u>Suncor Energy Inc. ("Suncor")</u> Suncor has two queries: 24. Suncor request that the AESO defines "orderwire" (OW) service that referred in Appendix 1 and Appendix 2, possibly with an example. 25. Suncor identified that the AESO proposed multiple (or single where applicable) backup voice communications systems depending on the Market Participant Subcategory in Appendix 1 and Appendix 2. Suncor proposes that backup voice communication can be elected by market participant from the choices that the AESO proposed (i.e. PC, P, OW, SAT and BKD) along	24. Please refer to AESO Reply 1. 25. The proposed ISO rule changes are more prescriptive to ensure that there are effective and usable backup communications in an emergency. The move away and restriction of satellite phone for some market participants is being done because it is an ineffective backup for large numbers of users and the added voice latency and

		with what the AESO proposed as Primary. For example, for TFO backup voice communication can be via SAT instead of OW in Appendix 1. Please provide why the choice is so prescriptive.	connection time degrades its effectiveness. The increased use of the utility orderwire system for critical market participants means an effective backup voice communication under the control and visibility of the utilities.
		TransAlta Corporation ("TransAlta") None	The AESO acknowledges TransAlta's comment.