

ISO Rules

Part 500

Division 502 Technical Requirements

Section 502.17 Voice Communication System Requirements



Applicability

1 Section 502.17 applies to:

- (a) the following **market participants**:
 - (i) the **operator** of a **generating unit** with a **maximum authorized real power** of 5 MW or greater;
 - (ii) the **operator** of an **aggregated generating facility** with a **maximum authorized real power** of 5 MW or greater;
 - (iii) the **operator** of a **transmission facility**;
 - (iv) the **operator** of an **electric distribution system**;
 - (v) a **pool participant**; and
- (b) the **ISO**.

Market Participant Requirements for Primary Voice Communication Systems

2 Each **market participant** must have a primary voice communication system that is:

- (a) a direct access telephone on the public telephone network;
- (b) not degraded by any other communication functionality or any other data transfer activities if there is any shared equipment;
- (c) automatically forwarded to another direct access telephone if the primary direct access telephone is unavailable and does not utilize voicemail; and
- (d) located at its **control centre** and control room.

Market Participant Requirements for Backup Voice Communication Systems

- 3(1)** Each **market participant** must have the type of backup voice communication systems identified in Appendix 1 for communicating with the **ISO**.
- (2)** Each **operator** of an **electric distribution system**, **operator** of a **generating unit**, and **operator** of an **aggregated generating facility** must have the type of backup voice communication system for communicating with each adjacent **market participant** as identified in Appendix 2.
- (3)** Each **operator** of a **transmission system** must have the type of backup voice communication system for communicating with each adjacent **market participant** as identified in Appendix 3.
- (4)** Each **operator** of a **generating unit** and **operator** of an **aggregated generating facility** must locate its backup voice communication system at its control room.
- (5)** Each **operator** of a **generating unit** and **operator** of an **aggregated generating facility** that controls its facility remotely must locate its backup voice communication system at its **control centre**.
- (6)** Each **operator** of an **electric distribution system** must have a backup voice communication system that is located at its **control centre**.
- (7)** Each **operator** of a **transmission facility** must have a backup voice communication system that is located at its **control centre**.

Satellite Telephone Service and Utility Orderwire Service Specific Requirements

4(1) Each **market participant** must, where its backup voice communication system is a satellite

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telephone service, use an AESO approved satellite network system as identified in [the AESO document that identifies the names of approved satellite network systems].

(2) Each **market participant** must, where its backup voice communication system is an utility orderwire service, ensure that its backup voice communication system has an availability greater or equal to 98%.

(3) Each **market participant** must, where its backup voice communication system is a satellite telephone service or utility orderwire service, ensure that its backup voice communication equipment located within its **control centre** or control room remains operational for a minimum of 8 hours in the event of an extended power outage to its facilities.

Backup Voice Communication System Testing

5(1) Each **operator** of a **generating unit**, **operator** of an **aggregated generating facility**, and **operator** of an **electric distribution system** required to have a backup voice communication system must test its backup voice communication systems at least once each **month** to verify successful two-way voice communication.

(2) Each **operator** of a **generating unit**, **operator** of an **aggregated generating facility**, and **operator** of an **electric distribution system** must, if the monthly test conducted pursuant to subsection 5(1) is unsuccessful, initiate or coordinate action to repair, or designate a temporary replacement voice communication system, within 2 hours of the unsuccessful test.

Appendices

Appendix 1 – *Requirements for Backup Voice Communications Systems with the ISO*

Appendix 2 - *Requirements for Backup Voice Communications Systems with Adjacent Operators of Transmission Facilities – Operator of Non-Transmission Facilities*

Appendix 3 – *Requirements for Backup Voice Communications System with Adjacent Market Participants – Operator of a Transmission Facility*

Revision History

Date	Description
xxxx-xx-xx	Initial release

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Appendix 1
 Requirements for Backup Voice Communication System with the ISO

Market Participant Category	Market participant subcategory	Market Participant Backup Voice Communication System Options For Communicating with the ISO Control Centre
A pool participant	who may receive a dispatch for ancillary services or a directive .	(1) Utility orderwire service (2) Satellite telephone service (3) Direct access telephone service
An operator of a generating unit or aggregated generating facilities connected to the transmission system or to transmission facilities within the City of Medicine Hat where the maximum authorized real power is	less than 50 MW based on the total amount of generation controlled by the control centre or control room.	(1) Utility orderwire service (2) Direct access telephone service
	equal to or greater than 50 MW and less than 300 MW based on the total amount of generation controlled by the control centre or control room.	(1) Utility orderwire service (2) Satellite telephone service
	equal to or greater than 300 MW based on the total amount of generation controlled by the control centre or control room, where the total synchronous generation is less than 300 MW.	(1) Utility orderwire service (2) Satellite telephone service
	equal to or greater than 300 MW based on the total amount of synchronous generation controlled by the control centre or control room.	(1) Utility orderwire service
An operator of a generating unit	providing a black start capability service.	(1) Utility orderwire service
An operator of a transmission facility	that operates a transmission facility , unless it only operates a radial circuit.	(1) Utility orderwire service
	that only operates a radial circuit.	(1) Utility orderwire service (2) Satellite telephone service (3) Direct access telephone service
An operator of an electric distribution system	who contributes load additions for black start capability process requirements.	(1) Utility orderwire service (2) Satellite telephone service (3) Direct access telephone service

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Appendix 2
Requirements for Backup Voice Communications with Adjacent Operators of Transmission Facility – Operator of a Non-Transmission Facility

Market Participant Category	Market Participant Subcategory	Market Participant Backup Voice Communication System Options For Communicating With The Adjacent Operator Of A Transmission Facility
An operator of a generating unit or aggregated generating facilities connecting to the transmission system or to transmission facilities within the City of Medicine Hat where the maximum authorized real power is:	less than 50 MW based on the total amount of generation controlled by the control centre or control room.	(1) Utility orderwire service (2) Direct access telephone service
	equal to or greater than 50 MW and less than 300 MW based on the total amount of generation controlled by the control centre or control room.	(1) Utility orderwire service (2) Satellite telephone service
	equal to or greater than 300 MW based on the total amount of generation controlled by the control centre or control room, where the total synchronous generation is less than 300 MW.	(1) Utility orderwire service (2) Satellite telephone service
	equal to or greater than 300 MW based on the total amount of synchronous generation controlled by the control centre or control room.	(1) Utility orderwire service
An operator of a generating unit	providing a black start capability service.	(1) Utility orderwire service
An operator of an electric distribution system		(1) Utility orderwire service (2) Satellite telephone service (3) An operator of electric distribution system connected only to a substation that is part of a radial circuit may use direct access telephone service, except those that contribute load additions for black start capability.

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Appendix 3
Requirements for Backup Voice Communications with Operators of Adjacent Market Participants
– Operator of a Transmission Facility

Market Participant Category	Adjacent Market Participant	Adjacent Market Participant Subcategory	Operator of a Transmission Facility Backup Voice Communication System Options For Communicating With Each Adjacent Market Participant
An operator of a transmission facility	An operator of a generating unit or aggregated generating facility connecting to the transmission system or to transmission facilities within the City of Medicine Hat where the maximum authorized real power is	less than 50 MW based on the total amount of generation controlled by the control centre or control room.	(1) Utility orderwire service (2) Direct access telephone service
		equal to or greater than 50 MW and less than 300 MW based on the total amount of generation controlled by the control centre or control room.	(1) Utility orderwire service (2) Satellite telephone service
		equal to or greater than 300 MW based on the total amount of generation controlled by the control centre or control room, where the total synchronous generation is less than 300 MW.	(1) Utility orderwire service (2) Satellite telephone service
		equal to or greater than 300 MW based on the total amount of synchronous generation controlled by the control centre or control room.	(1) Utility orderwire service
	An operator of a generating unit	providing a black start capability service.	(1) Utility orderwire service
	An operator of a transmission facility	that operates a transmission facility, unless it only operates a radial circuit.	(1) Utility orderwire service (2) An operator of a transmission facility that only operates a radial circuit may use satellite telephone service or direct access telephone service
		that only operates a radial circuit.	(1) Utility orderwire service (2) Satellite telephone service (3) Direct access telephone service
An operator of an electric distribution system		(1) Utility orderwire service (2) Satellite telephone service (3) An operator of electric distribution system connected only to a substation that is part of a radial	

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			circuit may use direct access telephone service, except those who contribute load additions for black start capability.
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