

# ISO Rules

## Part 500 Facilities

### Division 502 Technical Requirements

#### Section 502.4 Automated Dispatch and Messaging System and Voice Communication System Requirements



#### Applicability

- 1 Section 502.4 applies to:
  - (a) the **legal owner** of a **generating unit**;
  - (b) the **legal owner** of an **aggregated generating facility**;
  - (c) the **legal owner** of a **transmission facility**;
  - (d) the **legal owner** of an **electric distribution system**;
  - (e) a **pool participant**; and
  - (f) the **ISO**.

#### Requirements

##### New and Existing Systems

**2(1)** On and after the effective date of this section 502.4, a **market participant** with any new facility which is to be directly connected to the **interconnected electric system** must comply with the applicable minimum Automated Dispatch and Messaging System and voice communication systems requirements of this section 502.4.

**(2)** Subject to subsection 2(3), the provisions of this section 502.4 do not apply to any Automated Dispatch and Messaging System and voice communication systems in existence as of the effective date of this section 502.4, but those systems must remain in compliance with the technical specifications and operational requirements which were in effect as of the original date of the commencement of the systems' operation, including those in Appendix 1.

**(3)** The **ISO** may require a **market participant** to comply with any specific or all of the Automated Dispatch and Messaging System and voice communication systems requirements of this section 502.4, if the **ISO** determines that such compliance is critical for the safe and reliable operation of the **interconnected electric system**.

**(4)** A **market participant** in a subcategory identified in subsection 1 with a facility that has multiple control rooms must ensure that each control room is in compliance with the applicable Automated Dispatch and Messaging System and voice communication systems requirements of this section 502.4.

**(5)** The **ISO** must have Automated Dispatch and Messaging System and voice communication systems in its coordination centre and other back up locations to exchange communications with the control room of any **market participant** that is required to comply with the provisions of this section 502.4.

##### Successor to Prior Requirements

**3** Subject to subsection 2, this section 502.4 succeeds the *Operational Voice Communications Standard* in effect as of September 7, 2005, and the prior standard or any drafts of it no longer will be in force and effect as of the effective date of this section 502.4.

##### Systems Availability and Maintenance Requirements

**4(1)** All Automated Dispatch and Messaging system and voice communication systems under this section 502.4 must be continuously operational twenty four (24) hours a **day**, seven (7) **days** a week.

**(2)** Those systems must be maintained and serviced generally in accordance with **good electric industry practice** to ensure they are continuously operational.

#### Dedicated Primary Direct Access Telephone and Cell Phone Connections

**5(1)** If there is a requirement under this section 502.4 for one (1) or more primary direct access telephone connections to the **ISO** coordination centre from a **market participant** control room, then the connection must be dedicated for the exclusive use of the **ISO** and the **market participant**, and must not be degraded by any other communication or data transfer activities if there is any shared equipment or functionality associated with the connection.

**(2)** Each primary direct access telephone connection must be dedicated to the specific applicable operational function in the **ISO** coordination centre.

**(3)** Each primary direct access telephone number must be a primary number with automatic forwarding to another number if the primary number is busy or otherwise not available, and the use of voice mail is prohibited.

**(4)** Cell phone service may be used as a primary direct access telephone connection if it satisfies the requirements of subsections 4 and 5.

#### Mobile Satellite Telephone Service

**6(1)** If there is a requirement under this section 502.4 for mobile satellite network telephone service to the **ISO** from a **market participant**, then the service must be commercially available for one-to-one communications with the **ISO**.

**(2)** If there is a requirement for such service to be available for **dispatch** purposes, then the service must allow for multiple party communications, including those between the **ISO** and the **market participant**.

#### Specific Requirements

**7** The more specific systems requirements are as set out in the following Table 1:

**Table 1**  
**Automated Dispatch and Messaging System and Voice Communication Systems Requirements**

<b>A. Market Participant Subcategory</b>	<b>B. Primary Requirements</b>	<b>C. Emergency and Backup Requirements</b>
<b>1. A pool participant who may receive an energy market dispatch or a directive.</b>	1. Automated Dispatch and Messaging System; plus 2. A commercial service with a primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre.	None required.
<b>2. A pool participant who may receive an ancillary service dispatch or a directive.</b>	1. Automated Dispatch and Messaging System; plus 2. A commercial service with a primary direct access telephone connection from	One of the following additional services connecting from the control room to the <b>ISO</b> coordination centre: 1. A mobile satellite network telephone and

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	the control room to the <b>ISO</b> coordination centre, with the service having mute and conference call capabilities.	<b>dispatch</b> service; 2. A back up direct access telephone connection; or 3. A utility orderwire service.
<b>3. A legal owner of a generating unit or aggregated generating facilities</b> connecting to the <b>interconnected electric system</b> at a voltage of less than or equal to 25kV.	1. A commercial service with a primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre.	None required.
<b>4. A legal owner of a generating unit or aggregated generating facilities</b> connecting to the <b>interconnected electric system</b> at a voltage of greater than 25kV where the aggregated electric energy output at the point of connection is less than 50 MW.	1. A commercial service with a primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre.	A back up direct access telephone connection from the control room to the <b>ISO</b> coordination centre.
<b>5. A legal owner of a generating unit or aggregated generating facilities</b> connecting to the <b>interconnected electric system</b> at a voltage of greater than 25 kV where the aggregated electric energy output at the point of connection is equal to or greater than 50 MW.	1. A commercial service with a primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre, with the telephone having mute and conference call capabilities.	One of the following additional services connecting from the control room: 1. A direct access telephone connection to the control room of the <b>legal owner</b> of the <b>transmission facility</b> providing the <b>interconnected electric system</b> connection; 2. A mobile satellite telephone service to the <b>ISO</b> coordination centre; 3. A back up direct access telephone connection to the <b>ISO</b> coordination centre; or 4. A utility orderwire service to the <b>ISO</b> coordination centre.
<b>6. A legal owner of a generating unit</b> providing	1. A commercial service with a primary direct access	One of the following additional services connecting from the control room:

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a <b>black start capability</b> service.	telephone connection from the control room to the <b>ISO</b> coordination centre, with the service having mute and conference call capabilities.	<ol style="list-style-type: none"> <li>1. A direct access telephone connection from the control room to the operations room of the <b>legal owner</b> of the <b>transmission facility</b> providing the <b>interconnected electric system</b> connection;</li> <li>2. A back up direct access dedicated commercial telephone connection from the control room to the <b>ISO</b> coordination centre; or</li> <li>3. A utility orderwire service from the control room to the <b>ISO</b> coordination centre.</li> </ol>
7. A <b>legal owner</b> of a <b>transmission facility</b> , except those who operate only radial <b>transmission system</b> equipment.	1. A commercial service with primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre, with the service having mute and conference call capabilities.	One of the following additional services connecting from the control room to the <b>ISO</b> coordination centre: <ol style="list-style-type: none"> <li>1. A mobile satellite network telephone service;</li> <li>2. A back up direct access telephone connection; or</li> <li>3. A utility orderwire service.</li> </ol>
8. A <b>legal owner</b> of a <b>transmission facility</b> operating only radial <b>transmission system</b> equipment.	1. A commercial service with primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre.	1. A back up direct access telephone connection from the control room to the <b>ISO</b> coordination centre.
9. A <b>legal owner</b> of an <b>electric distribution system</b> .	1. A commercial service with primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre.	None required.
10. A <b>legal owner</b> of an <b>electric distribution system</b> who contributes <b>load</b> additions for <b>black start capability</b> process requirements.	1. A commercial service with primary direct access telephone connection from the control room to the <b>ISO</b> coordination centre.	One of the following additional services connecting from the control room: <ol style="list-style-type: none"> <li>1. A direct access telephone connection to the <b>legal owner</b> of the <b>transmission facility</b> providing the <b>transmission system</b> connection associated with the <b>black start capability</b> service.</li> <li>2. A mobile satellite network telephone service to the <b>ISO</b> coordination centre; or.</li> </ol>

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		3. A utility orderwire service to the ISO coordination centre.

#### Emergency and Back Up Communication Systems Requirements

**8** Each applicable **market participant** and the **ISO** must use the specified emergency and back up communication systems when there is an event that causes a primary communication system to be materially disrupted or impaired, including an event such as:

- (a) a real time **system emergency** condition, as may be referenced in any **reliability standard**; or
- (b) a **disturbance** or interruption of service by any provider of a primary communications system service.

#### Testing of Emergency and Back Up Communication Systems

**9(1)** The **ISO** must conduct tests for all emergency and back up communication systems on a reasonable basis and the testing schedule time and date must be made known reasonably in advance to the **operator** of a **market participant** whose system will be tested.

**(2)** If the test is a success then the **ISO** will not notify the **operator**, but if the test is a failure then the **ISO** will verbally notify the **operator** of the failure no later than twenty four (24) hours after the test is completed.

**(3)** After the **ISO** notifies the **operator** of the testing schedule, the **operator** must ensure that there are trained personnel available to conduct and facilitate the test at the designated date and time.

**(4)** In accordance with the confidentiality provisions of subsection 2(1) of section 103.1 of the **ISO rules Confidentiality**, the **ISO** must keep confidential the name of any facility that is subject to testing, and the date and time of the tests.

**(5)** If there is a failure of a test, then the applicable **market participant** or the **ISO**, depending on whose emergency and back up communication system has failed, must ensure the cause is investigated and repaired as soon as reasonably possible, but in any event the system must be repaired no later than five (5) **business days** after:

- (a) the date of the test failure, in the case of the **ISO**; or
- (b) the date of delivery of notice of the test failure, in the case of the **market participant**.

**(6)** The **ISO** must keep a copy of any test results for no less than two (2) calendar years after the date of the test.

#### Loss of Emergency and Back Up Communication Systems

**10(1)** If either the **ISO** or a **market participant** experiences a material disruption or complete loss of any emergency and back up communication systems at a point in time other than during a test period, then verbal notice must be given by:

- (a) the **ISO** to all affected **market participants**, if the **ISO** suffers the disruption or loss; or
- (b) the applicable **market participant** to the **ISO**, if the **market participant** suffers the disruption or loss.

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(2) The **market participant** that experiences the disruption or loss must investigate and repair it as soon as reasonably possible, but in any event no later than five (5) **business days** after the date of the discovery of the cause of the disruption or loss.

#### Appendices

Appendix 1 – *Technical Standards in Effect as of 2007*

#### Revision History

Effective	Description
2011-06-01	Initial release
2013-01-08	Appendix added containing authoritative system availability requirements specified in Table 2 of ISO OPP 003.2. Previously defined terms have been un-defined and so the words have been un-bolded.
2014-07-02	Unbolded the reference to “outage” in Appendix 1.

#### Appendix 1 – Technical Standards in Effect as of 2007

Standard Description	Applicable To	Standard Requirement	Reason for Standard
Maximum participant outage time	All <b>pool participants</b> receiving <b>dispatches</b> and with total <b>bids</b> or <b>offers</b> of greater than twenty-five (25) MW	Twenty-six point two five (26.25) hours per year.  Ninety-nine point seven percent (99.7%) availability.	Safe and reliable operation of the power system requires high <b>pool participant</b> availability for receiving <b>dispatches</b> .
	All <b>pool participants</b> receiving <b>dispatches</b> and with total <b>bids</b> or <b>offers</b> of less than twenty-five (25) MW	One hundred (100) hours per year.  Ninety-nine point eight percent (98.8%) availability.	
Maximum outage time per incident	All <b>pool participants</b> receiving <b>dispatches</b> and with total <b>bids</b> or <b>offers</b> of greater than twenty-five (25) MW	Six (6) hours	Safe and reliable operation of the power system requires high <b>pool participant</b> availability for receiving <b>dispatches</b> .
	All <b>pool participants</b> receiving <b>dispatches</b> and with total <b>bids</b> or <b>offers</b> of less than twenty-five (25) MW	Forty-eight (48) hours	
Call out response time	All <b>pool participants</b> receiving <b>dispatches</b> and with total <b>bids</b> or <b>offers</b> of greater than twenty-five (25) MW	Two (2) hours	Safe and reliable operation of the power system requires high <b>pool participant</b> availability for receiving <b>dispatches</b> .
	All <b>pool participants</b> receiving <b>dispatches</b> and with total <b>bids</b> or <b>offers</b> of less than twenty-five (25) MW	Next working day	