

ISO Rules

Part 500 Facilities

Division 503 Technical & Operating Requirements

Section 503.10 Isolating and Interrupting Devices



Applicability

- 1 Section 503.10 applies to:
 - (a) the **legal owner** and **operator** of a **generating unit, aggregated facility, or energy storage resource** that is directly connected to the **transmission system** or to **transmission facilities** within the City of Medicine Hat, including a **generating unit, aggregated facility, or energy storage resource** situated within an industrial complex that is directly connected to the **transmission system**;
 - (b) the **legal owner** of a load facility, where for purposes of this Section 503.10:
 - (i) “**legal owner**” refers to
 - (A) the **legal owner** of an **electric distribution system**; or
 - (B) a **person** who has entered into an arrangement directly with the **ISO** for the provision of **system access service** under subsection 101(2) of the **Act**;
 - and
 - (ii) “load facility” refers to a facility connecting industrial load or distribution load to the transmission system;
 - (c) the **legal owner** of a **transmission facility** to which a **generating unit, aggregated facility, energy storage resource**, or load facility is connected;
 - and
 - (d) the **ISO**.

Fault Interrupting Devices

2(1) The **legal owner** of a **generating unit, aggregated facility, or energy storage resource** must design the **generating unit, aggregated facility, or energy storage resource** fault interrupting devices to:

- (a) account for the fault contributions from both the **transmission facilities** and **generating unit, aggregated facility, or energy storage resource**; and
- (b) have fault interrupting and momentary withstand ratings that are adequate to meet the maximum expected fault levels, with a margin for future anticipated fault levels as the **ISO** approves in the functional specification for the **generating unit, aggregated facility, or energy storage resource**.

(2) The **legal owner** of a load facility and the **legal owner** of the **transmission facility** to which the load facility is connected to must ensure that there is at least one fault interrupting device that will electrically disconnect the load facility from the **transmission system** near the **point of connection**.

(3) The **legal owner** of a load facility and the **legal owner** of the **transmission facility** to which the load facility is connected to must ensure the fault interrupting device required by subsection 2(2) is designed and operated to account for the present and ultimate fault current contributions from both the load facility and the **transmission system**.

(4) The **legal owner** of:

- (a) a **generating unit, aggregated facility, energy storage resource**, or load facility;
- and

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- (b) the **transmission facility** to which the **generating unit, aggregated facility, energy storage resource**, or load facility is connected to,

must not use high voltage fuses at 60 kV or higher.

Disconnection

3(1) The **legal owner** of a **generating unit, aggregated facility, or energy storage resource** must have systems, controls, and related procedures to electrically disconnect the **generating unit, aggregated facility, or energy storage resource** at either one or both of:

- (a) the **point of connection**; and
- (b) the **collector bus** feeder breakers;

as documented in the functional specification, after consultation between the **legal owner** of the **generating unit, aggregated facility, or energy storage resource** and the **legal owner** of the applicable **transmission facility**.

(2) A **generating unit, aggregated facility, or energy storage resource** connecting to a **transmission facility** must provide the functionality and remote control capabilities to enable the **operator** of the **transmission facility** to open or trip any connecting circuit breaker either at the **point of connection** or any **collector bus** feeder breakers, as applicable.

Isolation Devices

4(1) The **legal owner** of:

- (a) a **generating unit, aggregated facility, energy storage resource**, or load facility; and
- (b) the **transmission facility** to which the **generating unit, aggregated facility, energy storage resource**, or load facility is connected,

must ensure that the **generating unit, aggregated facility, energy storage resource** or load facility has a minimum of one isolation device with manual operating capability at all points of isolation.

(2) The **legal owners** must, unless otherwise specified in the functional specification, ensure that the isolation devices referenced in subsection 4(1):

- (a) permit visual verification of electrical isolation and must be capable of being locked open with 2 or more locks;
- (b) are under the control of a single control authority as confirmed by a joint operating agreement between the **legal owner** of the **generating unit, aggregated facility, energy storage resource**, or load facility, and the **legal owner** of the **transmission facility**; and
- (c) permit the installation of temporary safety grounding so that either side of the isolation device can be safely maintained when the other side is energized.

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Notification to Reconnect

5 The **operator** of the **aggregated facility** must not, once a connecting breaker of the **aggregated facility** has been opened or tripped, electrically reconnect to the **transmission facility** unless it has received approval from the **ISO**.

Revision History

Date	Description
2024-04-01	Initial release.