

Information Document

Selected Load Facility Technical Requirements

ID #2019-051



Information documents are not authoritative. Information documents are for information purposes only and are intended to provide guidance. In the event of any discrepancy between an information document and any authoritative document¹ in effect, the authoritative document governs.

1 Purpose

This information document relates to the following authoritative document:

- Section 503.11 of the ISO rules, *Power Quality* (“Section 503.11”); and
- Section 503.12 of the ISO rules, *Grounding and Surge Protection* (“Section 503.12”).

The purpose of this information document is to provide clarifications respecting Sections 503.11 and 503.12.

2 Background

Division 503 sets out the minimum technical requirements for the design, construction, and operation of facilities that connect to the transmission system, including load facilities, and any transmission facilities to which a load facility connects. A standalone energy storage resource (ESR) or aggregated facility containing ESRs would not be considered a load facility, even though it has attributes of load.

3 Power Quality (Section 503.11)

Power quality requirements are found in Section 503.11. The AESO notes that all power quality indices and obligations are measured at the point of connection. In addressing power quality issues, such as the requirements in subsection 3(3), close coordination is encouraged between the legal owner of a load facility and the legal owner of the transmission facility to which the load facility is connected. Although 3(3) is imposed directly upon the legal owner of the transmission facility, it is expected that the legal owner of the transmission facility will consult with the legal owner of the load facility to arrive at the most cost-effective solution before submitting an estimate to the AESO.

4 Grounding and Surge Protection (Section 503.12)

Grounding requirements are set out in Section 503.12. The transmission system with a nominal voltage of 100 kV or higher and several 69/72 kV transmission systems have been designed and are operated as effectively grounded systems. The AESO intends to continue to operate these transmission systems as effectively grounded systems. As such, when a load facility is connecting to a transmission system that is an effectively grounded system, it is expected that the legal owner of the transmission facility and the legal owner of the load facility will coordinate to design and operate their facilities accordingly.

Revision History

Posting Date	Description of Changes
2024-04-19	Amendments to align with new Energy Storage ISO rule amendments and definitions.
2019-12-18	Initial Release

¹ “Authoritative Documents” is the general name given by the AESO to categories of documents made by the AESO under the authority of the *Electric Utilities Act* and associated regulations, and that contain binding legal requirements for either market participants or the AESO, or both. AESO Authoritative Documents include: the ISO rules, the Alberta reliability standards, and the ISO tariff.