

# Information Document

## Coordinating Energization, Commissioning, Ancillary Services Testing and Operational Testing

### ID# 2012-011R

Information Documents are not authoritative. Information Documents are provided for information purposes only and are intended to provide guidance. In the event of any discrepancy between an Information Document and any Authoritative Document(s) in effect, the Authoritative Document(s) governs.

## 1 Purpose

This information document relates to the following Authoritative Documents<sup>1</sup>:

- Section 504.3 of the ISO rules, *Coordinating Energization, Commissioning, and Ancillary Services Testing* ("Section 504.3"); and
- Section 504.4 of the ISO rules, *Coordinating Operational Testing* ("Section 504.4").

These ISO rules require that certain testing activities be approved by the AESO prior to the tests occurring. This document describes the process for coordinating tests with the AESO using testing plans.

Additional information on testing processes and procedures for facilities connecting to the grid is available on the ["Connecting to the Grid"](#) page on the AESO website.

## 2 What Kinds of Tests Can a Legal Owner Perform?

A legal owner can perform any tests it determines necessary. However, the AESO expects testing to be coordinated in accordance with Section 504.3 and Section 504.4 of the ISO rules. Coordination ensures that the AESO can maintain reliable operations of the interconnected electric system when tests are performed.

To coordinate testing activities, a legal owner submits a testing plan detailing the proposed testing activities to the AESO for approval. The three types of testing plans submitted to the AESO are commissioning plans, ancillary services testing plans, and operational testing plans.

## 3 What Tests Need to be Coordinated with the AESO?

When assessing if a test needs to be coordinated with the AESO, consider whether the test is being performed on:

- (a) energized transmission facilities; or
- (b) commissioning new transmission facilities; or
- (c) commissioning large loads of sufficient size to cause operational concerns (particularly, motor starting that might cause significant voltage depressions).

The following are examples of tests that a legal owner should coordinate with the AESO. These examples are meant to serve as guidance and are not an exhaustive list of all tests requiring coordination:

- (a) commissioning a new transmission breaker (date and time);
- (b) commissioning a new transformer (date and time);

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<sup>1</sup> "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 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.

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- (c) commissioning a new capacitor bank (date and time);
- (d) commissioning or testing motor starting (e.g. variable frequency drives) where the motor size has been identified to cause operational concerns (date and time, test details);
- (e) commissioning or testing a static VAr compensator (date and time, test details); and
- (f) commissioning or testing a phase shifting transformer (date and time, test details).

#### 4 Information to Include in a Testing Plan

A legal owner's testing plan should provide sufficient information for the AESO to assess how the transmission system will be impacted. Testing plans should include the type of test, the time and date of the proposed test, as well as the expected output, consumption, or transfer of real power and reactive power during the test.

Any legal owner that is unsure of what to include in a testing plan may contact the AESO Project Manager leading the project or the AESO Operations Coordination group ([ops.coordination@aeso.ca](mailto:ops.coordination@aeso.ca)) for additional information.

#### 5 Commissioning Plan (Section 504.3)

For transmission system connections for new or modified transmission or load facilities, a legal owner should submit the preliminary commissioning plan to the AESO Project Manager leading the specific project. The AESO reviews the preliminary commissioning plan to determine if any changes to the testing schedule and equipment are required.

As described by the AESO's Connection Process, a legal owner should submit the final commissioning plan to the AESO Operations Coordination group for approval at [ops.coordination@aeso.ca](mailto:ops.coordination@aeso.ca).

The AESO expects that the legal owner will submit final commissioning plans at least sixty (60) days in advance of testing. This will provide sufficient time for the AESO to review and approve the plan thirty (30) days prior to commissioning, as specified by subsection 4 of Section 504.3.

The amount of lead time necessary to review and approve a commissioning plan will depend on:

- (1) the number and complexity of the tests the legal owner wishes to perform;
- (2) the number of other test plans submitted to the AESO by other legal owners;
- (3) the number of planned and unplanned outages occurring when commissioning plans are submitted; and
- (4) the number and magnitude of reliability issues affecting the grid when commissioning plans are submitted.

#### 6 Ancillary Services Testing (Section 504.3)

The technical requirements for ancillary services are set out Division 205 of the ISO rules. The AESO expects that a legal owner conducting ancillary service testing will coordinate the tests in accordance with the requirements set out in Section 504.3.

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#### 7 Operational Testing (Section 504.4)

Operational testing is testing that occurs when the facility is in normal operation i.e., after energization and commissioning. Section 504.4 specifies the requirements for coordinating operational testing activities with the AESO.

Operational testing plans should be submitted to the AESO's Operations Coordination group at [ops.coordination@aeso.ca](mailto:ops.coordination@aeso.ca). The AESO expects that a legal owner will submit plans for operational tests at least thirty (30) days in advance of the planned testing. This will allow sufficient time for the AESO to review and approve the plan (15) days prior to testing, as specified by subsection 3 of Section 504.4.

Section 504.4 does accommodate more urgent operational testing to recover from unexpected operating problems. Subsection 4 of Section 504.4 lists the specific procedures to follow when testing is needed to recover from an unexpected operational problem. These requests should be communicated and coordinated with the AESO System Controller directly.

#### 8 Real Time Approval of Testing

In addition to AESO approval of testing plans, legal owners are required to obtain the AESO's verbal authorization one hour prior to testing, as indicated in Section 504.3 and Section 504.4. The AESO will provide such approval if the real time conditions of the system allow for the specific tests. If, based on the real time system conditions, the system cannot be operated in a safe and reliable manner, the AESO will work with the legal owner to re-schedule the tests.

#### Revision History

Posting Date	Description of Changes
2025-02-24	General updates to streamline and clarify information in the document. Removed outdated information.
2012-12-31	Initial Release