

ISO Rules
Part 500 Facilities
Division 505 Legal Owners of Generating Facilities
Section 505.3 Coordinating Synchronization, Commissioning,
Model and Reactive Power Validation Testing and
Ancillary Services Testing



Applicability

1 Section 505.3 applies to:

- (a) the **legal owner** of a **generating unit** or **energy storage resource** with a rating greater than or equal to 5 MW that is connected or to be connected to **transmission facilities** or an **electric distribution system** in the **balancing authority area** of the **ISO** and where the **generating unit** or **energy storage resource**:
 - (i) is a new **generating unit** or new **energy storage resource**;
 - (ii) has been the subject of a modification affecting its net-to-grid operating capabilities;
 - (iii) requires baseline model validation and reactive power testing; or
 - (iv) requires testing in accordance with any **ancillary services** technical requirements;
- (b) the **legal owner** of an **aggregated facility** with a rating greater than or equal to 5 MW that is connected or to be connected to **transmission facilities** or to an **electric distribution system** in the **balancing authority area** of the **ISO** and where the **aggregated facility**:
 - (i) is a new **aggregated facility**;
 - (ii) has been the subject of a modification affecting its net-to-grid operating capabilities;
 - (iii) requires baseline model validation and reactive power testing, ; or
 - (iv) requires testing in accordance with any **ancillary services** technical requirements;
- (c) the **ISO**.

Requirements

Connecting New Facilities

2(1) The **legal owner** of a **generating unit**, **energy storage resource**, or **aggregated facility** must not synchronize its facility until obtaining written confirmation from the **ISO** that:

- (a) the **legal owner** has met the energization requirements; and
- (b) the **legal owner**'s final **commissioning** plan, required under subsection 3, is approved.

(2) The **legal owner** of a **generating unit**, **energy storage resource**, or **aggregated facility** must, not less than one hour prior to synchronizing its facility, phone the **ISO** and obtain verbal authorization from the **ISO** to synchronize the facility.

(3) The **legal owner** of a **generating unit**, **energy storage resource**, or **aggregated facility** may, after receiving authorization to synchronize its facility, synchronize it to the **transmission system**.

Plans for Commissioning, Model and Reactive Power Validation Testing, or Ancillary Services Testing Activities

- 3** The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** must provide a final, written **commissioning** or testing plan to the **ISO**:
- (a) which the **ISO** approves as implementable without impacting the reliable operation of the **interconnected electric system**;
 - (b) detailing the types of tests the **legal owner** proposes to conduct, including model and reactive power validation tests; and
 - (c) a minimum of 30 **days** prior to **commissioning** or testing.

Commissioning or Testing Major Facilities Plan Details

- 4** The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** intending to perform **commissioning**, model and reactive power validation testing, or **ancillary services** testing activities, must include in its **commissioning** or testing plan the details of the proposed testing activities, including the expected output, consumption, or transfer of **real power** and **reactive power** from the facility to the **interconnected electric system** and over what periods of time.

Commissioning Minor Facilities Plan Details

- 5** A **legal owner** of a **generating unit, energy storage resource, or aggregated facility** that owns any of the following:
- (a) circuit breakers;
 - (b) transformers and voltage regulators;
 - (c) capacitor banks;
 - (d) reactors; and
 - (e) alternating current transmission lines,

intending to conduct **commissioning** on such facilities must include in its **commissioning** plan the proposed date and time of energization.

Conducting Commissioning, Model and Reactive Power Validation Testing, or Ancillary Services Testing Activities

6(1) The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** must not begin its **commissioning** or testing activities until obtaining written confirmation from the **ISO** that the **legal owner's** final **commissioning** or testing plan, required under subsection 3, is approved.

(2) The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** must, not less than one hour prior to the scheduled time of **commissioning** or testing, phone the **ISO** and obtain verbal authorization from the **ISO** to proceed.

(3) The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** may, after receiving authorization to proceed with its **commissioning** or testing activities, commence the **commissioning** or testing activities.

Changes to Approved Commissioning or Testing Activities

7(1) The **ISO** may amend or suspend any **commissioning**, model and reactive power validation testing,

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or **ancillary services** testing activities it has already approved under subsection 3, based on real time **reliability** requirements of the **interconnected electric system** and necessary **ISO** operational flexibility, and it may do so by providing written or verbal notice to the **legal owner** of the facility.

(2) The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** may suspend its **commissioning**, model and reactive power validation testing, or **ancillary services** testing activities by giving verbal notice to the **ISO**.

(3) The **legal owner** of a **generating unit, energy storage resource, or aggregated facility** may amend its **commissioning**, model and reactive power validation testing, or **ancillary services** testing activities by making a verbal request to the **ISO** and obtaining verbal approval.

(4) A **legal owner** of a **generating unit, energy storage resource, or aggregated facility** that has amended or suspended any previously approved **commissioning**, model and reactive power validation testing, or **ancillary services** testing activities must, if the **ISO** requests, submit a revised written **commissioning** or testing plan and must do so within the timeframe the **ISO** specifies in order to proceed with **commissioning**, model and reactive power validation testing, or **ancillary services** testing activities.

Revision History

Date	Description
2024-04-01	Amended, as approved in Commission Decision 28176-D01-2023 issued on June 13, 2023.
2012-12-31	Initial release