Master/Local Control Center Procedure No. 10

(M/LCC 10)

Generator Governor Control and Operation

1. References

ISO New England Manual for Market Operations, Manual M-11 (Manual-11)

ISO New England Manual for Definitions and Abbreviations, Manual M-35 (Manual-35)

ISO New England Operating Procedure No. 14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources (OP-14)

2. Purpose

This procedure establishes a methodology for each Generator Designated Entity (DE) and ISO New England (ISO) to communicate the status of a Generator governor by ensuring that a non-functioning or blocked Generator governor is reported to ISO. This reporting will allow ISO to ensure the continued reliable operation of the Bulk Electric System (BES).

3. Introduction

ISO requires Generator governor performance characteristic reporting and tracking, specifically for the purpose of maintaining the capability of Generators to support control of system frequency during a BES disturbance.

4. Definitions

Governors: - For the purposes of this procedure a “functioning governor” includes hardware or software that provides autonomous frequency-responsive power control.

Governors Free To Respond: - Turbine governors and HVDC controls, where applicable, should be able to respond to system frequency deviation, unless there is a temporary operating problem.

5. Applicability

This procedure applies to all Generators of ten (10) megawatts net output or greater that are equipped with governors operational for frequency response per ISO New England Operating Procedure No. 14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources (OP-14).

6. Procedure

NOTE

A Generator that does **not** meet OP-14 criteria and that has been granted an exemption by ISO is listed in Attachment A - Generators Exempted from Governor Requirements. Generators listed in Attachment A are **not** required to meet the governor criteria in OP-14.

1. When reporting a non-functioning or blocked Generator governor, the Generator DE performs the following:

NOTE

The term "Redeclaration' used in this procedure is defined in ISO New England Manual for Definitions and Manual M-35 (Manual 35) as "A restatement of a Resource's availability, limits, or other Offer Data, except price, submitted by a Market Participant to the ISO to reflect a change in the status or capability of the Resource or changed by the ISO based upon the Resource's actual performance."

   A. If applicable, submit a Redeclaration, per ISO New England Manual for Market Operations, Manual M-11 (Manual-11) indicating the Generator output is restricted, the level of restriction, and that this restriction is due to a non-functioning or blocked Generator governor control.

   B. If the non-functioning or blocked Generator governor does **not** impact Generator performance (i.e. **no** Redeclaration to Eco Max or MRR is required), directly report the Generator governor status to the ISO Control Room.

   C. Project the expected return-to-service time and date.

2. When the Generator governor problem **no** longer exists, the Generator DE performs the following:

   A. If applicable, request removal of the Redeclaration, per Manual-11, indicating that the Generator output is **no** longer restricted.

   B. If a non-functioning or blocked Generator governor did **not** impact Generator performance (i.e., **no** Redeclaration to Eco Max or MRR was required), directly report to the ISO Control Room that the Generator governor is now functioning properly.

3. When notified of a Generator governor problem, ISO Control Room Staff performs the following :

   A. If the non-functioning governor restricts Generator performance capabilities, accept the Generator Redeclaration.

B. Enter the date, time, reason, and Generator name in the Control Room Event Logserver.

C. Create an application in the ISO Outage Scheduling software to track each non-functioning or blocked Generator governor.

D. Notify the applicable Local Control Center (LCC) of the non-functioning or blocked Generator governor.

4. Upon notification that a Generator is **no** longer operating with a non-functioning or blocked Generator governor, ISO Control Room Staff performs the following :

A. Remove the Generator Redeclaration indicating that the Generator output is **no** longer restricted (if applicable).

B. Enter the return-to-service date and time in the Control Room Event Logserver.

C. Complete the application in the ISO Outage Scheduling software used to track each non-functioning or blocked Generator governor.

D. Notify the applicable LCC that the Generator governor is now functional.

7. Logging Requirements

All Control Room Event Logserver entries, as created in Section 6 of this procedure, are retained for a minimum period of 12 rolling months.

8. Revision History

Rev. No.	Date	Reason
1	09/07/01	
2	09/01/04	Standardize procedure format and incorporate RTO language changes, Updated for software and terminology used in Standard Market Design
3	11/16/06	Revised NERC Standard reference and added communications to LCC pertaining to governor status
4	03/12/09	Biennial review completed; Changed header Contact Title from Manager, Operations to Director, Operations; Changed header Review Due Date: to be 24 months from the Effective Date:; Added dashes to OP abbreviations in References Section
5	08/24/09	Changed as applicable to reflect the EMU project; Minor clarifying grammatical and editorial changes; In Reference Section, added NERC Reliability Standard & Manual-11 and corrected the OP 1 title;
6	03/10/11	Biennial review by procedure owner; Minor editorial changes to format, replaced all Footer page numbers with Page X of Y format, updated Header copyright date; Section 1 deleted BAL-002, OP-1 & M/LCC 2; added SOPs RTMKTS.0110.0010 and RTMKTS.0125.0040; Modified Section 6.3.B, Section 6.3.C, Section 6.4.B, Section 6.4.C. Section 6.5.A & Section 6.5.B

Rev. No.	Date	Reason
7	03/07/13	Biennial review by procedure owner; Headers, updated copyright date, made required administrative modifications; 1st page Footer, deleted disclaimer 2nd paragraph; Minor editorial changes, format, punctuation, etc., per current practices and management expectations; Global, deleted all references to Sop-RTMKTS.125.0040 and used standard terminology for logging in the Control Room Event Logserver;
8	12/10/14	Biennial review by procedure owner; Corrected procedure owner in all headers; Corrected titles of reference documents; Added clarifying language for treatment of Generators exempt from Governor Requirements; Added new NOTE prior to step 6.1.A; Deleted steps 6.1.C and 6.2.C; Globally replaced “shall”; Deleted all references to SOP-RTMKTS.0110.0010; Added new Attachment A
9	09/28/16	Biennial review completed by the procedure owner; Added required corporate document identity to all Footers; Globally made directed actions be in the present tense, per current practices and management expectations; Modified steps 6.2.A, and 6.2.B; Modified step 6.3.A and deleted sub-steps 6.3.A.(1) and (2); Modified step 6.4.A;
9.1	07/12/18	Periodic review performed by procedure owner requiring no changes; Incorporated the administrative changes required to publish a Minor Revision (including updating OP-14 title in Section 1 References and Section 5 Applicability);
9.2	05/20/20	Biennial review performed by procedure owner requiring no changes;
9.3	05/12/22	Biennial review performed by procedure owner requiring no intent changes
9.4	05/08/24	Biennial review performed by procedure owner requiring no intent changes; Minor formatting changes; Corrected Attachment A Title; Made administrative changes required to publish a Minor Revision.
9.5	05/07/26	Biennial review performed by procedure owner requiring no changes.

9. Attachments

Attachment A - Generators Exempted from Governor Requirements