	© ISO New England Inc. 2007	Procedure: Determine Study Requirements
	Process Name: Perform Complex Studies	
	Procedure Number: OUTSCH.0050.0010	Revision Number: 5
	Procedure Owner: Ed Rappold	Effective Date: October 5, 2007
	Approved By: VP Operations	Review Due Date: October 1, 2008

SOP-OUTSCH.0050.0010


Determine Study Requirements

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1. Objective

The objective of this procedure is to evaluate the need to perform a special complex study of the New England power system. This procedure documents the responsibilities of ISO New England (ISO) staff.


Compliance with this procedure is necessary to ensure the reliable operation of the New England power system in accordance with ISO New England Operating Procedure No. 3 – Transmission Outage Scheduling (OP-3), ISO New England Operating Procedure No. 5 – Generator and Dispatchable Asset Related Demand Maintenance and Outage Scheduling (OP-5), and ISO New England Operating Procedure No. 19 – Transmission Operations (OP 19). This procedure does not in any way change the intent of OP-3, OP-5, or OP-19 but rather is intended to clarify some of the responsibilities delegated to ISO staff by those procedures. This procedure also supports the cost-effective operation of the power system. This procedure can affect Market operation and settlements.

2. Background

Many things including system demand, Generator / Dispatchable Asset Related Demand outages, transmission outages, generation and load patterns, new facilities, and unusual operating configurations affect the reliability of the power system. These same issues can also affect the cost-effective operation of the power system.

Transmission Operating Guides (TOGs) SPS devises and thermal analysis of the power system adequately address a broad range of operating conditions. However, when actual or planned operating conditions are determined to potentially exceed the scope of operating guides and thermal analysis, a special complex study should be performed. This procedure establishes the process for determining the need for such a complex study. If it is determined that a complex study is needed the study is conducted according to SOP-OUTSCH.0050.0020 - Perform Complex Studies.

3. Responsibilities

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- Operations Support Services personnel and System Operations Principal Engineers are responsible for executing this procedure.


4. Controls

None.

5. Instructions

5.1 When to Consider the Need for a Complex Study

1. Operations Support Services personnel and System Operations Principal Engineers shall:
 - A. Monitor on an ongoing basis:
 - Transmission Outages
 - Resource additions / retirements and reconfigurations
 - B. Consider the need for a complex study in the case of:
 - Notification by a Local Control Center, Transmission Owner, or external entity of a perceived need to perform a complex study
 - Notification by the ISO Outage Coordination personnel or System Operators during outage evaluations
 - Request for an economic evaluation of a system configuration or outage
 - Conflicting, interacting, or related outages that might significantly impact the New England power system
 - Outages potentially impacting IROL limits or occur in a previously recognized sensitive area as identified by:
 - Operating experience
 - TOGs
 - Unusual system configurations
 - Unusual system dispatch conditions
 - Significant changes to New England power system topology
 - The addition or retirement of a Generator or Dispatchable Asset Related Demand


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5.2 Determining the Need for a Complex Study

1. Review the Outage Request Form and /or other relevant documentation such as the Long Term Transmission Outage Plan.
2. When considering the need for a complex study, consider the following issues:
 - The applicability of existing TOGs under the current or planned circumstances
 - The results of previous studies
 - The extent to which the actual or planned conditions are non-typical
 - The suitability of normal contingency analysis for evaluating the current or planned circumstances
 - Unusual or unmodeled contingencies
 - Voltage issues
 - Stability issues
 - System protection issues
 - Excessive fault current duty
 - Effects on nuclear power plants
3. Determine the need for a complex study and:
 - A. If a complex study is not needed:
 - (1) Notify the requester and inform them of the reason that further study is not warranted.
 - (2) Indicate the applicable TOG or tool for appropriately addressing the actual or planned system condition.
 - B. If a complex study is needed, assign the complex study to a staff person, conduct according to SOP-OUTSCH.0050.0020 - Perform Complex Studies and:
 - (1) Forward all relevant information to the assigned staff person.
 - (2) Provide study recommendations as deemed appropriate.

6. Performance Measures

None.

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7. References

SOP-OUTSCH.0050.0020 - Perform Complex Studies

ISO New England Operating Procedure No. 3 – Transmission Outage Scheduling (OP-3)

ISO New England Operating Procedure No. 5 – Generator and Dispatchable Asset Related Demand Maintenance and Outage Scheduling (OP-5)

ISO New England Operating Procedure No. 19 – Transmission Operations (OP-19)

8. Revision History

Rev. No.	Date	Reason	Contact
A	05/24/02	Initial draft procedure	
B	07/18/02	Revised to incorporate sign off comments	
0	02/13/03	Initial procedure for SMD	Tom Dutkiewicz
1	6/5/03	Update Procedure to current practice	Tad Witowski
2	11/14/03	Modified Controls and Performance Measures to align with ISO 9001 standards	Tad Witowski
3	02/01/05	Updated SOP for RTO terminology	Tad Witowski
4	09/20/06	Revised for ASM Phase 2	Ed Rappold
5	10/05/07	Clerical revisions made as part of annual review	Ed Rappold

9. Attachments

None.