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**Compliance Audit Report
Of
Ontario's
Independent Electricity System Operator
(IESO)
November 2007**

Public Version

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Executive Summary

The offsite compliance audit of Ontario's Independent Electricity System Operator (IESO) was conducted on November 5 to November 8, 2007. The IESO is mandated to, among other responsibilities, manage the wholesale electricity market, ensure the reliable operations of the electric system, assess future system conditions thereby providing market signals to facilitate decisions on investment in power system facilities and ensuring that all additions to the system meet required standards. The IESO's legislated responsibility also includes establishing reliability standards for Ontario.

The IESO is registered with NERC as the Planning Authority (Coordinator), Transmission Planner, Reliability Coordinator, Balancing Authority, Transmission Service Provider and Transmission Operator. Within Ontario, compliance with NERC standards and NPCC regional standards and criteria for all of these functions is streamlined such that the IESO would assume the overall responsibility, with market rules and agreements in place between the IESO and market participants to facilitate compliance and its enforcement within the Province. The audit team evaluated IESO compliance with the four transmission planning reliability standards identified in the NERC 2007 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard. The auditor contacted one IESO employee representing subject matter expertise with overall responsibility of compiling the audit submission and the lead auditor reviewed accompanying documentation the IESO presented as evidence of compliance.

All of the reliability standards applicable to Transmission Planning were classified as applicable to the IESO. See Audit Results Findings for the specifics. The IESO provided adequate evidence of compliance with all of the applicable standards and the requirements within.

Audit Process

The compliance audit process steps are detailed in the NERC CMEP. The NERC CMEP generally conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

Objectives

All registered entities are subject to audit for compliance with all reliability standards applicable to the functions for which the registered entity is registered.¹ The audit objectives are:

- Independently review the IESO's compliance with the requirements of the reliability standards that are applicable to the IESO based on their registered functions.
- Validate compliance with applicable reliability standards from the NERC 2007 Implementation Plan list of actively monitored standards.

¹ North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

Scope

The compliance audit was performed by an audit team consisting of regional entity staff, independent contractors, and a NERC representative. Confidentiality agreements executed by the independent contractors and code of conduct documentation for the NERC representative and regional entity staff were provided to the audited entity in advance of the audit. The auditor reviewed accompanying documentation presented as evidence of compliance.

Compliance audits of the IESO are scheduled on a periodic basis of three year intervals. The reliability standards reviewed in the IESO audit included all of the Transmission Planning standards in the NERC 2007 Implementation Plan. For the 2007 program, reliability standards are monitored based on the retention periods and monitoring timeframes specified in each reliability standard. The list of reliability standards along with their corresponding monitoring timeframes are listed in Appendix 1. The audit team leader provided a list of reliability standards to IESO before the audit.

Methodology

The auditor did not conduct any interviews as the documentation provided for each applicable reliability standard was deemed excellent in scope and presentation. If after reviewing the submitted evidence, the auditor had additional questions, he would have contacted subject matter experts at the IESO to respond to the questions.

The auditor goes through submitted evidence to determine if the evidence meets the requirements of the reliability standard. If the evidence was inadequate or did not cover all of the requirements in the reliability standard, the auditor would have asked for additional evidence. If the IESO could not find or submit additional evidence then the auditor would have determined that a possible violation exists. The IESO would not have been asked to create documentation in these instances only to submit existing evidence in addition to what was already submitted. The auditor reviewed IESO documentation offsite and did not copy any information unless approved by the IESO contact.

The IESO has requested that the discs containing the supporting evidence be returned due to the confidential nature of some documentation. The auditor will comply by returning the discs to the IESO once the report has been made final and posted at NERC. The IESO was requested by the auditor to ensure that the supporting information be saved in its current format until after their next Transmission Planning audit and they have agreed.

Audit Considerations

No audit process or procedure can define every possible aspect, situation or scenario encountered by auditors when conducting a compliance audit. Auditors are expected to use their best professional judgment. The following paragraphs describe considerations when conducting bulk electric system reliability compliance audits.

Compliance audits of the bulk electric system reliability are based on newly defined mandatory reliability standards. Implementation of the reliability standards involves some risk for compliance audits due to the inherent learning curve of registered entities. This risk is mitigated

by educating registered entities via regional compliance seminars, providing reliability standard information on the regional and NERC websites, encouraging industry involvement in the standards development process and by training compliance auditors.

The bulk electric system contains many variables which require skilled personnel to plan and operate in a reliable manner. Many requirements in the NERC reliability standards specify or are dependent on reliability studies depicting both the planning and operational time horizons. It is difficult to audit the validity of the multitude of studies that are performed to ensure registered entities meet these requirements. To mitigate this risk the audit team must make professional judgments in its assessment of compliance based on 1) the interview with the registered entities subject matter experts, 2) documented reports and policies, 3) tools/programs used to perform the studies, 4) results of the studies.

Company Profile as it pertains to Transmission Planning

A competitive Ontario electricity market was launched in May 2002. The basic market structure resembles those commonly found in other jurisdictions in North America with ISOs or RTOs responsible for administering the market, ensuring reliable operation of the system and performing planning activities. Like these ISOs and RTOs, when the Ontario market was first formed, an integrated function to plan for generation and transmission facilities required to meet demand growth did not exist. A long-term assessment and forecast process, the 10-year Forecast, was put in place to provide signals to market participants, including Transmission Owners, to help make investment decisions for generation and transmission facilities to enable/enhance their market presence and to meet forecast demand.

In 2005, the Ontario Government established the Ontario Power Authority (OPA). Part of the OPA's mandate is to develop an Integrated Power System Plan (IPSP) to assess future conservation, generation and transmission needs. In its mandate, the OPA may acquire conservation and generation resources that are identified in the IPSP. In essence, the OPA assumed what used to be the integrated planning function before market deregulation.

The Role of IESO, Transmission Owners and Ontario Power Authority (OPA)

The IESO

The IESO is mandated to, among other responsibilities, manage the wholesale electricity market, ensure the reliable operations of the electric system, assess future system conditions thereby providing market signals to facilitate decisions on investment in power system facilities and ensuring that all additions to the system meet required standards. The IESO's legislated responsibility also includes establishing reliability standards for Ontario.

The IESO is registered with NERC as the Planning Authority (Coordinator), Transmission Planner, Reliability Coordinator, Balancing Authority, Transmission Service Provider and Transmission Operator. Within Ontario, compliance with NERC standards and NPCC regional standards and criteria for all of these functions is streamlined such that the IESO would assume the overall responsibility, with market rules and agreements in place between the IESO and market participants to facilitate compliance and its enforcement within the Province.

The Transmission Owners

Transmission Owners in Ontario are not obligated to provide transmission facilities to meet future transmission needs to relieve congestion in the system. Their mandate is to provide grid connection to generators and loads, and to provide sufficient facilities to meet reliability performance targets for load supply areas. However, the provincial energy regulator, the Ontario Energy Board (OEB), may order Transmission Owners to expand or reinforce their transmission systems to ensure and maintain system integrity or reliable and adequate capacity and supply of electricity.

The Ontario Power Authority (OPA)

The OPA was established in 2005. Part of the OPA's mandate is to develop the Integrated Power System Plan (IPSP) that identifies necessary resources and transmission facilities to meet future needs for the reliable supply of electricity to the Province. The OPA conducts a fully-fledged IPSP process once every 3 years, with reviews in the interim period as needed. The IESO is registered as the Planning Coordinator with NERC for the Province of Ontario, and delegates some of the associated tasks to the OPA through an IESO-OPA delegation agreement.

The Planning Process in Ontario

Planning in Ontario is conducted on two fronts - assessing future system conditions with known and expected facilities in place, and developing future plans on generation and transmission to meet demand growth.

Forecast

On the assessment front, the IESO, as the Planning Coordinator, conducts long-term and short-term forecast assessments as follows:

- A 10-year Outlook that is conducted annually (until 2005);
- An Ontario Reliability Outlook (started in 2006) that is issued semi-annually;
- An 18-Month Outlook that is conducted quarterly;
- A 5-year Review of Resource Adequacy and a 5-year Review of Transmission Adequacy report submitted to NPCC annually (in accordance with the Regional Document B8 and B4, respectively, to demonstrate compliance with the NPCC criteria on planning).

These forecast exercises provide an evaluation of the future conditions such as system constraints and resource adequacy based on planned system conditions; they do not propose resource or transmission plans to meet adequacy needs or to alleviate system constraints. Market participants use the information provided in the reports to make decisions on investments in power system assets.

In conducting these assessments, the IESO observes established system operating limits and transfer capabilities on the interconnected systems. System operating limits that are developed by the IESO for the Ontario system, and jointly with its interconnected systems, are determined based on NERC reliability standards, NPCC regional standards and criteria, and the interconnected system's regional reliability standards, wherever applicable.

Mitigating Measures

Transmission Owners in Ontario are, pursuant to the market rules, required to propose transmission projects to address reliability constraints identified in any of the forecast reports. They are also obligated to propose transmission projects to meet reliability performance targets for load supply areas. In addition, the OPA may request Transmission Owners to propose and carry out transmission investments to accommodate changing load and generation patterns. If the IESO does not believe that market participants have or will voluntarily put forward reasonable commitments for technically feasible options to alleviate the constraints identified in its forecasts and assessments, the IESO may direct the Transmission Owners in the relevant location(s) to prepare a detailed proposal for the enhancement of the IESO-controlled grid. In response, Transmission Owner(s) submit proposals to the OEB and other governmental agencies for approval, and to the IESO to conduct a System Impact Assessment (SIA) - a process that involves computer simulations to assess system performance under forecast system conditions and when subjected to various contingencies. In conducting the SIAs, the IESO applies pertinent NERC reliability standards and NPCC regional reliability standards to evaluate the reliability performance of the proposed projects.

Planning

Being delegated some of the planning tasks, the OPA in 2005 launched its IPSP process to identify future resource and transmission needs required to meet demand growth over a 20-year period. This process essentially replaced the IESO's 10-year forecast assessment. The IESO is involved in the IPSP process by assessing the operability of the IPSP, and by proposing alternatives or modifications to the plan as appropriate.

In the IPSP, the OPA identifies resource requirements, and procures resources as required to ensure supply adequacy. The OPA also proposes transmission projects to incorporate the resource additions and respond to demand growth. Transmission Owners, in response to the IPSP report, develop options to meet the transmission facility proposals, which include route selections, line types, associated facilities, etc. These options are evaluated by the IESO through the System Impact Assessment (SIA) process.

The IESO's role as the Planning Authority (Coordinator) is very much in line with the overall role as described in the Functional Model.

The Role of a Transmission Planner in Relation to the TPL Standards

(Excerpt from the Version 3 Functional Model)

Develops a plan (generally one year and beyond) for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator Area.

In Ontario, since the launch of the competitive market in 2002 and until the OPA was created in 2005, Transmission Owners have been proposing transmission projects that would meet future needs when constraints were identified on the IESO-controlled grid either by the IESO or through its' own assessments, or when requested by the appropriate authority.

Additionally, the IESO is obligated to notify the OEB and the OPA of the determinations drawn from its planning assessments including the existence of adverse conditions, if any exist, and provide appropriate recommendations to the above-mentioned entities including support to the OPA in the OPA's assessment of the options that may be available for market participants or others to remove or alleviate the adverse condition.

Furthermore, during the course of its planning assessments, if the IESO identifies adverse conditions within the operations planning time horizon, and if it does not believe that market participants have or will voluntarily put forward reasonable commitments for technically feasible options to alleviate the conditions that it has identified, the IESO may direct the relevant transmission owner(s) to prepare a detailed proposal for the enhancement of the IESO-controlled grid.

Audit Specifics

The compliance audit was conducted offsite in November 2007.

Audit Team

Audit Team Role	Name	Title	Company
Lead	Kim Pitchell	Contracted Consultant	NPCC-Compliance Audit Program
Member	Sal Buffamante	Manager	NPCC-Compliance Audit Program

IESO Audit Lead

Name	Title	IESO Organization
Ron Falsetti	Team lead	Reliability Compliance Program

Audit Results

The auditor documented the evidence reviewed for compliance with each applicable Transmission Planning reliability standard.

Findings

The following table details the summarized auditor notes relating to evidence reviewed for compliance with the reliability standards.

Reliability Standard	Auditor Notes	Finding
TPL-001-0	Ample evidence to support compliance, as indicated by agreements, plans and studies submitted by applicable entities in Ontario	Y
TPL-002-0	Ample evidence to support compliance, as indicated by agreements, plans and studies submitted by applicable entities in Ontario	Y
TPL-003-0	Ample evidence to support compliance, as indicated by agreements, plans and studies submitted by applicable entities in Ontario	Y
TPL-004-0	Ample evidence to support compliance, as indicated by agreements, plans and studies submitted by applicable entities in Ontario	Y

Conclusions

The IESO provided evidence of compliance with all of the applicable monitored transmission planning reliability standards. The documentation provided to the auditor by the IESO was precisely laid out and excellent in composition and detail. Employee support was also excellent.

Summary of IESO Response to the Audit Findings

The IESO is delighted that the NPCC audit finds it fully compliant with all the requirements of the NERC transmission planning standards, TPL-001 through TPL-004. The IESO is also pleased to read that the supporting documentation submitted by it during the audit process was deemed “precisely laid out and excellent in composition and detail” by the audit team.

Adherence to and implementation of NERC and NPCC reliability standards and regional criteria is of primary importance to the IESO in fulfilling its role of ensuring the reliability, adequacy, and security of the Ontario electricity grid for the real-time, operational, and planning horizons. The audit findings are a clear indication of the IESO's exemplary performance in meeting, and exceeding, NERC and NPCC transmission planning requirements and criteria for the province. The findings are also reflective of the fact that the IESO not only has the appropriate resources, procedures, and processes in place but also effectively communicates and coordinates all transmission and resource planning requirements and associated implementation plans with the Ontario Power Authority (OPA) and the provincial transmitters, within the scope of the IESO's mandate and obligations.

The IESO strongly supports the audit processes implemented by NPCC and assures the NPCC of its cooperation and timely response at all times.

Appendix I – Applicable Reliability Standards

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
BAL-001-0	All except R3	Real Power Balancing Control Performance	BA	To maintain Interconnection steady-state frequency within defined limits by balancing real power demand and supply in real-time.	The data that supports the calculation of CPS1 and CPS2 (Attachment 1-BAL-001-0) are to be retained in electronic form for at least a one-year period. If the CPS1 and CPS2 data for a Balancing Authority Area are undergoing a review to address a question that has been raised regarding the data, the data are to be saved beyond the normal retention period until the question is formally resolved. Each Balancing Authority shall retain for a rolling 12-month period the values of: one-minute average ACE (ACEi), one-minute average Frequency Error, and, if using variable bias, one-minute average Frequency Bias.	Yes but not for this audit
BAL-002-0	All	Disturbance Control Performance	BA, RSG, RRO	To ensure the Balancing Authority is able to utilize its Contingency Reserve to balance resources and demand and return Interconnection frequency within defined limits.	Compliance for DCS will be evaluated for each reporting period. Reset is one calendar quarter without a violation. The data that support the calculation of DCS are to be retained in electronic form for at least a one-year period.	Yes but not for this audit
BAL-003-0	All except R4+R6	Frequency Response and Bias	BA	This standard provides a consistent method for calculating the Frequency Bias component of ACE.	Yearly or by request.	Yes but not for this audit

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
CIP-001-1	All	Sabotage Reporting	RC, BA, TOP, GOP, LSE	Disturbances or unusual occurrences, suspected or determined to be caused by sabotage, shall be reported to the appropriate systems, governmental agencies, and regulatory bodies.	By request and any events in the last year.	Yes but not for this audit
CIP-002-1 through CIP-009-1	All	Critical Infrastructure Protection Standards	BA, GO, GOP, IA, LSE, NERC, RC, RRO, TO, TOP, TSP	Cyber Security Standards- Follow revised Implementation Plan for Cyber Security Standards CIP-002-1 through CIP-009-1	By request.	Yes but not for this audit
COM-001-1	R1,R2 and R5	Telecommunications	TO, BA, RC, NERCNet User Organizations.	Each Reliability Coordinator, Transmission Operator and Balancing Authority needs adequate and reliable telecommunications facilities internally and with others for the exchange of Interconnection and operating information necessary to maintain reliability.	By request.	Yes but not for this audit
EOP-001-0	All	Emergency Operations Planning	BA, TOP	Each Transmission Operator and Balancing Authority needs to develop, maintain, and implement a set of plans to mitigate operating emergencies. These plans need to be coordinated with other Transmission Operators and Balancing Authorities, and the Reliability Coordinator.	By request.	Yes but not for this audit

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
EOP-003-1	All	Load Shedding Plans	BA, TOP	A Balancing Authority and Transmission Operator operating with insufficient generation or transmission capacity must have the capability and authority to shed load rather than risk an uncontrolled failure of the Interconnection.	R1, R5, R6 - Event Driven. Has an event occurred in the past year? R2, R3, R4, R7, R8 – By request	Yes but not for this audit
EOP-005-1	All	System Restoration Plans	BA, TOP	To ensure plans, procedures, and resources are available to restore the electric system to a normal condition in the event of a partial or total shut down of the system	By request. Note: entity must follow the timelines specified in the standard: show that the plan is reviewed annually; simulation or testing must be done every 5 years.	Yes but not for this audit
EOP-006-1	All	Reliability Coordination – System Restoration	RC	The Reliability Coordinator must have a coordinating role in system restoration to ensure reliability is maintained during restoration and priority is placed on restoring the Interconnection.	By request.	Yes but not for this audit
EOP-008-0	All	Plans for Loss of Control Center Functionality	BA, RC, TOP	Each reliability entity must have a plan to continue reliability operations in the event its control center becomes inoperable.	By request.	Yes but not for this audit
EOP-009-0	All	Documentation of Blackstart Generating Unit Test Results	GO, GOP	To ensure that the quantity and location of system blackstart generators are sufficient and that they can perform their expected functions.	By request. Note entity must meet testing frequency specified in EOP-007-0.	No

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
FAC-003-1	All	Vegetation Management	RRO, TO	To improve the reliability of the electric transmission systems by preventing outages from vegetation located on transmission rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between transmission lines.	By request – program documentation and last 4 quarterly outage reports.	No
FAC-008-1	All	Facility Ratings Methodology	GO, TO	To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology.	By request the current methodology and any superseded portions of the methodology within the past 12 months.	No
FAC-009-1	All	Establish and Communicate Facility Ratings	GO, TO	To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.	By request.	No

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
IRO-001-1	R8	Reliability Coordination – Responsibilities and Authorities	BA, GOP, LSE, PSE, RC, RRO, TOP, TSP	Reliability Coordinators must have the authority, plans, and agreements in place to immediately direct reliability entities within their Reliability Coordinator Areas to re-dispatch generation, reconfigure transmission, or reduce load to mitigate critical conditions to return the system to a reliable state. If a Reliability Coordinator delegates tasks to others, the Reliability Coordinator retains its responsibilities for complying with NERC and regional standards. Standards of conduct are necessary to ensure the Reliability Coordinator does not act in a manner that favors one market participant over another.	By request.	Yes but not for this audit
IRO-004-1	R3,R4+R7	Reliability Coordination — Operations Planning	BA, GO, GOP, LSE, RC, TO, TOP, TSP	Each Reliability Coordinator must conduct next-day reliability analyses for its Reliability Coordinator Area to ensure the Bulk Electric System can be operated reliably in anticipated normal and Contingency conditions.	By request.	Yes but not for this audit
IRO-014-1	All	Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators	RC	To ensure that each Reliability Coordinator’s operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.	By request.	Yes but not for this audit

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
IRO-015-1	All	Notifications and Information Exchange Between Reliability Coordinators	RC	To ensure that each Reliability Coordinator's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.	Rolling 12 months of information provided on request.	Yes but not for this audit
IRO-016-1	All	Coordination of Real-time Activities Between Reliability Coordinators	RC	that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas	Rolling 12 months of information provided on request.	Yes but not for this audit
PER-002-0	All	Operating Personnel Training	BA, TOP	Each Transmission Operator and Balancing Authority must provide their personnel with a coordinated training program that will ensure reliable system operation.	By request training program and training records.	Yes but not for this audit
PER-003-0	All	Operating Personnel Credentials	BA, RC, TOP	Certification of operating personnel is necessary to ensure minimum competencies for operating a reliable Bulk Electric System.	By request latest certification information and present calendar year plus previous calendar year staffing plan.	Yes but not for this audit
PER-004-1	All	Reliability Coordination — Staffing	RC	Reliability Coordinators must have sufficient, competent staff to perform the Reliability Coordinator functions.	By request - Each Reliability Coordinator shall keep evidence of compliance for the previous two calendar years plus the current year.	Yes but not for this audit
PRC-004-1	All	Analysis and Mitigation of Transmission and Generation Protection System Misoperations	DP*, GO, TO	Provide trip operation / misoperation information per regional process.	By request – last 12 months of protection system Misoperation analysis.	No
PRC-005-1	All	Transmission and Generation Protection System Maintenance and Testing	DP*, GO, TO	Document/implement transmission protection system maintenance/testing/monitoring PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
PRC-008-0	All	Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program	DP, TO	Document/implement UFLS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-010-0	All	Technical Assessment of the Design and Effectiveness of Undervoltage Load Shedding Program.	DP, LSE, TO, TOP	ASSESS design and effectiveness of UVLS programs	By request – current assessment.	Yes but not for this audit
PRC-011-0	All	UVLS System Maintenance and Testing	DP, TO	Document/implement UVLS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-016-0	All	Special Protection System Misoperations	DP, GO, TO	DOCUMENT/analyze misoperations	By request – last 12 months of special protection system Misoperation analysis.	No
PRC-017-0	All	Special Protection System Maintenance and Testing	DP, GO, TO	Document/implement SPS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-021-1	All	Under-Voltage Load Shedding Program Data	DP, TO	DOCUMENTATION of undervoltage load shedding program	By request – latest UVLS data.	No
TOP-003-0	All except R4	Planned Outage Coordination	BA, GOP, RC, TOP	Scheduled generator and transmission outages that may affect the reliability of interconnected operations must be planned and coordinated among Balancing Authorities, Transmission Operators, and Reliability Coordinators.	By request.	Yes but not for this audit

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
TOP-004-1	R2+R6	Transmission Operations	TOP	To ensure that the transmission system is operated so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single Contingency and specified multiple Contingencies.	By request - Each Transmission Operator shall keep 90 days of historical data for Measure 1. Each Transmission Operator shall have current, in-force policies and procedures, as evidence of compliance to Measure 2.	Yes but not for this audit
TOP-005-1	All except R2+R4	Operational Reliability Information	BA, PSE, RC, TOP	To ensure reliability entities have the operating data needed to monitor system conditions within their areas.	By request.	Yes but not for this audit
TOP-007-0	All except R4	Reporting System Operating Limit (SOL) and Interconnection Reliability	RC, TOP	Ensure SOL and IROL violations are being reported to the Reliability Coordinator so that the Reliability Coordinator may evaluate actions being taken and direct additional corrective actions as needed.	Event driven.	Yes but not for this audit
TPL-001-0	All	System Performance Under Normal (No Contingency) Conditions	PA, TPL	System performance under normal conditions	By request – latest annual assessment.	Yes
TPL-002-0	All	System Performance Following Loss of a Single Bulk Electric System Element	PA, TPL	System performance under single contingency	By request – latest annual assessment.	Yes
TPL-003-0	All	System Performance Following Loss of Two or More Bulk Electric System Elements	PA, TPL	System performance under multiple contingencies	By request – latest annual assessment.	Yes

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to IESO?
TPL-004-0	All	System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements	PA, TPL	System performance under extreme contingencies	By request – latest annual assessment.	Yes
VAR-001-1	All except R5	Voltage and Reactive Control	PSE, TOP	To ensure voltage levels, reactive flows, and reactive resources are monitored, controlled, and maintained within limits in real time to protect equipment and the reliable operation of the Interconnection.	By request – last 12 months of data.	Yes but not for this audit

Appendix 2: Confidential Security Sensitive Information

[This section may contain confidential security sensitive information which is not included with the public version, but retained by NERC and the regional organization and is sent privately to the audited entity.]