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BY ELECTRONIC MAIL AND RESS

December 22, 2010

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: IESO 2010 Reliability Compliance and Technical Feasibility Exception (TFE) Reporting

Please find attached the Independent Electricity System Operator (IESO) 2010 Reliability Compliance Report (Section I) and year end status reporting on TFEs (Section II), filed pursuant to section 6.2(f) of the IESO license and TFE reporting requirements as established by the IESO's Market Assessment and Compliance Division (MACD).

Please note that Section II is confidential and only for OEB perusal. This section will not be made public by the IESO.

Please let me know if you have any questions regarding this report.

Thank you.

/s/ Biju Gopi
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CC: Peter Fraser, Acting Managing Director of Regulatory Policy and Compliance

Section I

2010 RELIABILITY COMPLIANCE REPORT

2010 RELIABILITY COMPLIANCE REPORT

This report summarizes the significant actions the IESO undertook in 2010 with respect to its activities in regard to the development of reliability standards and criteria, as well as the work it undertook in 2010 in cooperation with parties outside of Ontario. This report is prepared and filed pursuant to section 6.2(f) of the IESO license.

The IESO fulfills its roles and responsibilities with respect to ensuring reliability in a number of ways, including:

- Administering Ontario's electricity markets and enforcing the reliability compliance program in Ontario, pursuant to the *Electricity Act, 1998* and the Ontario Market Rules;
- Operating as the Reliability Coordinator (RC), Transmission Operator (TOP), Transmission Planner (TP), Interchange Authority (IA), and Balancing Authority (BA) for Ontario, and as a member of the Northeast Power Coordinating Council (NPCC) and the North American Electric Reliability Corporation (NERC).
- The IESO has adopted the NERC and NPCC reliability standards, regional reliability standards and criteria. Additionally, under the market rules, the IESO has the authority to set additional standards and criteria in Ontario when necessary. These activities are supported by the IESO's Memorandum of Understanding (MOU) with NERC and NPCC which sets out the obligations of the signatories, and compliments the MOU between the Ontario Energy Board (OEB) and NERC; and
- Participating in various industry forums, councils, and committees for the development and administration of a number of activities related to administering electricity markets, coordinating with neighbouring regional entities on market and reliability matters, developing reliability standards that deal with both operational and planning activities, and incorporating emerging technologies including renewable resources, storage technology, smart grid applications and demand response resources.
- Positioning the company to deliver on its core responsibilities in a changing electricity sector including responding to the challenges associated with the implementation of the government's renewable energy policies.

A. LEGISLATIVE, REGULATORY AND INDUSTRY DEVELOPMENTS

1. Advocacy and Influence

The *Electricity Act, 1998*, the OEB License and the IESO Market Rules provide the IESO with authority to advocate on behalf of Ontario reliability related discussions and decisions, and to ensure that the IESO is able to fulfill its legislative and license obligations respecting the maintaining the reliability of the IESO-controlled grid and effective management of the IESO-administered markets.

The IESO meets these obligations through its collaboration and interactions with reliability authorities, industry contemporizes and associations, electricity participants and stakeholders

and government agencies. The IESO also advocates and influences the development of reliability standards to ensure that Ontario's interests are preserved in the broader North American interconnected electricity grid. Advocacy is an essential part of the IESO's reliability related activities and is supported by IESO management and staff.

2. Ontario Energy Board (OEB)

The IESO worked closely with the OEB and Market Participants on the following matters:

Distribution Reliability Standards:
The IESO participated in the OEB's initiative to develop electricity distribution reliability standards. The OEB is seeking to codify system reliability standards for distributors. The development of a formal framework for distribution system reliability will support a tighter linkage of system reliability standards with a distributor's service quality and performance and provide rationale for distributor investment planning decisions and rate applications.

Hydro One Networks Request for OEB License Exemptions for Processing Issues for Large Renewable Energy Generation Projects:
The IESO submitted interrogatory responses to the OEB's hearing on Hydro One Network's application requesting exemptions from its license to address processing issues for large renewable energy generation projects. The IESO was asked to provide a listing of distribution connected generator projects that have to undergo a SIA and how many of these have been completed within the new processing timelines set out in Regulation 326/09. In addition the IESO described the internal process changes made by the IESO and Hydro One Transmission to leverage time efficiencies in processing SIAs and CIAs for FIT applications.

Hydro One Transmission Revenue Requirement Proceeding – Export Transmission Tariff:
The IESO intervened in the Hydro One Transmission Revenue Requirement Proceeding. The IESO replied to interrogatories and provided witness to the panel regarding the study and recommendation on the ETS tariff. In its final argument, the IESO reiterated its position that it would prudent to maintain the current $1.00/MWh ETS tariff until Ontario has integrated more intermittent renewable resources into the electricity system and the IESO has developed new tools/processes and has gained requisite experience operating the system under these dramatically transformed conditions. Given the anticipated in-service dates for the first major tranche of FIT intermittent generation resources, the IESO recommends that the current ETS tariff be maintained at least until the spring of 2013.

Section 92 Applications:

The IESO intervened in the following facilities applications under S.92:

CNP
Canadian Niagara Power Inc. (CNP) filed an application under section 92 requesting an order from the Board granting leave to construct transmission facilities in Niagara Falls and Fort Erie. The IESO questioned the appropriateness of the current leave to construct application and its associated order(s) sought with respect to CNP's international power line. The IESO submitted that any leave to construct related to CNP's international power line is subject to

the NEB's review and approval and not the Ontario Energy Board. Additionally, following information provided by the IESO, CNP conceded that NERC Standard TOP-002-2 does not apply to the CNP transmission system since it is not part of the bulk transmission system. The OEB ruled on this matter on March 31 and denied the application.

Northgate Minerals Corporation

Northgate Minerals Corporation applied for an order of the Board granting leave to construct approximately 7 kilometres of 115 kV electricity transmission line, and a substation at its Young-Davidson Mine site, near the Town of Matachewan. The Applicant filed in its pre-filed evidence, the final SIA report, completed by the IESO, which concluded that the project will not have any negative or adverse system impacts, provided certain conditions and recommendations are implemented.

Lower Mattagami

Hydro One Networks Inc. applied for an order of the Board for leave to construct transmission facilities for the Lower Mattagami Transmission reinforcement Project. An IESO System Impact Assessment for this project was included in the pre-filed evidence. The report, which covers more than just the subject of the current application, concluded that the Project would have no negative effect on the reliability of the grid. The SIA included a number of detailed recommendations and technical requirements. The recommendations related to protection settings and information, operational matters, settings on equipment and tests to verify equipment capability and facilities. The Board accepted the evidence provided in the SIA report which concluded that the proposed project will neither have a negative impact on the reliability of the grid nor on service to other customers. The Board will require, as part of the conditions of its approval, that the applicant satisfy the requirements of the SIA.

Detour Gold

The Board accepted the evidence provided in the SIA report which concludes that Phase 1 of the proposed project would not adversely impact the reliability of the IESO-controlled grid. As a condition of approval, the Board requires that Detour satisfy the requirements and recommendations prescribed by the IESO as reflected in the SIA report August 19, 2010, and such further and other conditions which may be imposed by the IESO.

Toronto Midtown Transmission Reinforcement Project

System Impact Assessments were conducted by the IESO to determine the implications for the system of the proposed reinforcements by Hydro One to Toronto Midtown. A final System Impact Assessment dated August 12, 2009, and a System Impact Assessment Addendum dated January 25, 2010 were filed by the Applicant in this proceeding. These assessments document the IESO's conditional approval of the project, and its finding that the new configuration of the facilities once the project is completed will not prejudice efficient operation of the system. The Board approved the project and will require, as part of the conditions of its approval, that the applicant satisfy the requirements of the SIA.

3. North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council (NPCC)

Through regular interactions and submission of comments, the IESO continues to maintain and advance positive relations with NERC and NPCC.

The IESO was engaged in numerous NERC processes including actively commenting on changes to the NERC Rules of Procedure (ROP). The ROP was modified by NERC to incorporate the development of reliability standards based on directives from a regulatory authority. The IESO actively engaged the Canadian Electricity Association (CEA) and helped guide a Canada-wide response to NERC's proposed changes.

The IESO actively participated in both NERC and NPCC 2011 business planning activities through discussions with executive staff, formal submissions and participation in conference calls. The IESO was successful in representing Ontario's concerns on the proposed significant budget increases which contributed to the initial proposed increases being reduced substantially. The IESO was again successful in obtaining special funding allocations (fee reductions) for Ontario from both NERC and NPCC in recognition of Ontario's compliance framework.

4. Federal Energy Regulatory Commission (FERC)

The IESO remains actively involved with the proceedings of FERC. The IESO actively intervened and commented on various FERC proposed rulemakings (NOPRs) and Technical Conferences in 2010.

The IESO worked with its NPCC counterparts to file comments opposing FERC's proposal to move to a bright-line approach for defining bulk electric system (BES) elements. The IESO noted that the application of NERC reliability standards should be limited to achieving wide area reliability (as is currently done) without expanding its scope to cover local-area reliability and that FERC's proposed approach would result in NERC reliability standards being applied to the majority of facilities, 100 kV and above, a significant number of which are only local-area impactive in the event of a contingency event, and often under the purview of different regulatory authorities. The loss of such facilities will not have a wide area impact, that is, such a loss will not cause any adverse effects outside their local area or the interconnected electricity grid and would not result in cascading outages affecting the interconnected electricity grid.

The IESO, along with Hydro One, offered joint comments of FERC's proposal related to the interpretation of a particular transmission planning requirement. In the filing, the parties noted that FERC was redefining a particular requirement on its own, without industry consensus, and was going beyond the powers provided to it by the U.S. Federal Power Act 2005.

The IESO offered comments on FERC's NOPR related to training of control room personnel (PER set of standards) as well as intervened in a couple of proceedings related to FERC's

directives to NERC to unilaterally change NERC's ROP to incorporate FERC directives and regarding the installation and operation of replacement Phase Angle Regulators (PARs) by the Midwest ISO and the International Transmission Company (ITC) on the Michigan-Ontario border.

The IESO also worked in close coordination with the ISO/RTO Council (IRC) on offering joint comments on various FERC NOPRs and Technical Conferences including the Technical Conference related to frequency response reliability standards.

The IESO's regulatory submissions to FERC are available on the IESO website at http://www.ieso.ca/imoweb/corp/regulatory.asp

B. IESO MARKET AND SYSTEM RELATED ACTIVITIES

1. IESO 18 Month Outlooks

To ensure reliability, the IESO regularly assesses the adequacy and reliability of Ontario's power system and provides signals to market participants and the public. Through regular issues of the 18 Month Outlooks, the IESO reports on progress of the inter-related generation, transmission and conservation projects underway to meet future reliability requirements and identified necessary plans to meet changing conditions.

During 2010, stakeholders were consistently updated on the forecasted security and adequacy of Ontario's interconnected integrated power system through IESO publications of four quarterly 18-month forecasts.

In the most recent publication of the 18 Month Outlook (December 2010 – May 2012), the IESO noted that with 1,700 megawatts (MW) of new generation expected to come online, and a transmission system adequate to meet expected demands, the period from December 2010 to May 2012 presents no new reliability or adequacy concerns.

The 18-month forecasts and the ORO can be found on the IESO website at:
http://www.ieso.ca/imoweb/monthsYears/monthsAhead.asp

2. Addressing the Increasing Complexity of Real-Time Operations

Over the past year, the IESO has seen how complex it is to achieve efficient operations with most suppliers operating under the influence of long-term contracts or revenue guarantees that are largely price insensitive. Going forward, this complexity will only grow with the significant increases in Ontario's renewable generation. The IESO remains committed to meeting the challenge of integrating these new renewable resources into its operations seamlessly, reliably and efficiently, though that will require modifications to processes, establishing needed market rules, and developing the new tools required to help manage this new operating environment.

To address this increasing complexity, the IESO is launching the following initiatives:

- Create a Renewables Integration function in the Control Room: Adding one additional position to our shift staff complement, on a 7 x 24 hour basis, to integrate the increased number of connected facilities, most of which will be variable generation sources, and to help participants address their complex operating challenges (creation of a Renewables Integration Desk)

- System Operations Simulator: Providing staff with training opportunities on a power system simulator to ensure ongoing compliance with changing NERC standards (initially using a basic system simulator, during which a needs assessment will be undertaken for a full replica simulator, as the user requirements are identified for the IESO's next Energy Management System)

- Compliance Program: Increasing the focus on compliance and enforcement of Market Rules, NPCC Criteria, NERC Standards and other related standards and obligations to operate effectively in today's increasingly integrated operating environment (All market participants, including the IESO, require an effective in-house compliance program, which will necessitate greater effort in the coming years to undertake risk identification, analysis and mitigation)

Moreover, the Enhanced Day-Ahead Commitment Process (EDAC) which is designed to increase the efficiency of the electricity market through the advanced scheduling and commitment of resources required to provide electricity on a daily basis, is currently on schedule and expected to be fully operational by the fall of 2011.

3. Market Rule Amendments

The following is a list and short summary of the reliability-related market rules that came into effect in 2010:

MR-00334-R00-R04: Enhanced Day-Ahead Commitment Process – Settlement Guarantees

The amendment would:

- Specify the settlement activities for the determination of reliability guarantee payments and related settlement amounts for the enhanced day-ahead commitment process (EDAC). It relates to day-ahead guarantees, failure charges and settlement uplift associated with EDAC.
- Specifies the IESO obligations to determine and carry forward to the settlement process the information and data necessary to determine EDAC reliability guarantees and other related settlement amounts. These IESO obligations are necessary to ensure transparent, accurate and timely determination of the relevant settlement amounts.

MR-00359-R00-R01: Generation Facility Requirements – Changes to Facilitate Connections

The amendment would simplify and clarify generator technical requirements in order to facilitate the integration of embedded generation, improve the administrative efficiency of the market entry process and improve the IESO's effectiveness in assessing proposed connections.

MR-00364-R00-R04: Ancillary Services – Allowing Non-Generation Resources to Provide Regulation

The amendment would allow non-generation resources to provide regulation in the IESO-administered markets. Allowing alternative resources to provide regulation in Ontario is consistent with the principle that the market should provide for open non-discriminatory access by all who meet reasonable publicly stated standards.

MR-00365-R00: Metering – Settlement of Transmission Tariffs for Embedded Generation

This amendment would permit the use of the alternative metering installation standard for embedded generation facilities that are registered in the IESO-administered market and which require metering for the purposes of the collection of transmission tariffs.

MR-00366-R00: Technical Feasibility Exceptions

The amendment would:

- Permit market participants who own critical cyber assets to use the Technical Feasibility Exceptions (TFE) process to gain exceptions from Critical Infrastructure Protection reliability standards for equipment that is technically unable to meet certain requirements;
- Provide the IESO with the authority to approve a request for a Technical Feasibility Exception;
- Allow the IESO to recover costs associated with assessing and processing these requests; and,
- Provide TFE applicants access to the dispute resolution process.

MR-00368-R00: Harmonized Sales Tax

The amendment would amend the market rules in order to be compliant with Bill 218 (an Act to implement 2009 Budget measures) by replacing market rule references to the Goods and Services Tax with harmonized value-added tax.

MR-00369-R00: Changes to the Dispute Resolution Panel

The amendment would reduce the minimum number of members required to be available to arbitrate a dispute from five to three to align with the reduced Dispute Resolution Panel membership requirements of the Governance and Structure By-Law.

MR-00373-R00: Congestion Management – Suspend CMSC for Constrained off Dispatchable Loads

The amendment would:

- Temporarily suspend energy related congestion management credit payments to constrained-off dispatchable load facilities.
- The rule amendment is required to eliminate significant CMSC payments to two market participants that are not consistent with the intent of CMSC payments under the market rules.
- The suspension would remain in effect while the IESO considers alternative solutions.

MR-00371-R00: Changes to Generation Station Service Rebate

The amendment would remove the one month delay in generator reimbursement, ensure the settlement amount is based on all final settlement data, and reduce the effort required by both the generator and the IESO to settle this charge.

MR-00370-R00: Limiting CMSC Payments for Exporters and Dispatchable Loads

When an exporter or dispatchable load is eligible for a CMSC payment and has a negative bid that is less than -$125 for exporters/ -$50 for dispatchable loads, and the bid is less than the applicable energy market clearing price, the prices used for the CMSC payment calculation would be the lesser of -$125 for exporters/ -$50 for dispatchable loads or the applicable market clearing price. The replacement bid prices of -$125 for exporters and -$50 for dispatchable loads shall be set by the IESO and published in the applicable market manual. The prices will be periodically reviewed by the IESO to assess their impacts, and are subject to change if necessary.

MR-00374-R00: Replacing the Temporary Suspension of CMSC for Constrained-Off Dispatchable Loads

This amendment specifies that a market participant for a dispatchable load shall not be entitled to constrained off CMSC where there is a price-quantity change in the energy bid associated with the dispatchable load and that change results in:

- a change in the quantity scheduled in the market schedule; and
- the ramping up or down of the dispatchable load.

4. Stakeholder Engagement Activities

The *Electricity Act, 1998* requires the IESO to establish one or more processes by which consumers, distributors, generators, transmitters and other persons who have an interest in the electricity industry (collectively, stakeholders) may provide advice and recommendations for consideration by the IESO. The IESO Board approved the adoption of enhanced stakeholder engagement principles and processes, and approved the creation of the Stakeholder Advisory Committee (SAC), to ensure compliance with its legislative obligation.

Below is a list of notable reliability related engagements and activities initiated or currently underway in 2010:

SE-84: Congestion Management Settlement Credit (CMSC) Payments for Generation Facilities: In several of its reports, the Market Surveillance Panel (MSP) has recommended that the IESO pursue market rule amendments to allow the recovery of, or to limit, CMSC payments which are made to generators under specific circumstances. The purpose of this initiative is to gather feedback from the generator community regarding these circumstances and to assist the Technical Panel with its review of MR-00252.

SE-83: 2010 Corporate Performance Measures: Performance measurement helps the IESO monitor how well it achieves the goals approved by its Board of Directors. The current set of measures track how well the IESO performs in operating and maintaining the reliability of the Ontario power system and the electricity market, in managing customer and stakeholder issues and needs, in effectively using the funds provided to the IESO, and developing and managing employee capabilities to meet current and future customer needs. The IESO is developing a proposed set of corporate performance objectives and measures for 2010. The intent is to achieve a framework for objectives and measures that remain outcomes-oriented and relevant to external stakeholders, but are more directly linked to the IESO's strategic business objectives.

SE-75: Outage Management Replacement Project: Market participants are required to request permission and receive approval for planned outages from the IESO. A project for the replacement of the existing Outage Management System is underway with the first phase being the implementation of a user interface for market participants who do not currently submit outages via an Application Programming Interface (API). This phase will address some process efficiencies indentified by both the IESO and market participants. This initiative is of specific interest to all market participants who currently submit outage requests to the IESO.

SE-73: Enhanced Day-Ahead Commitment Detailed Design: The IESO Board of Directors approved proceeding with the development of an Enhanced Day-Ahead Commitment (EDAC) system on September 5, 2008. Completion of the detailed design of EDAC will be the primary focus of this stakeholder engagement plan. This includes defining the elements associated with systems and processes for operations, the optimization engine, and settlements. A core objective of this plan is to provide affected stakeholders with the opportunity to identify operational and settlement issues with respect to EDAC processes and systems, in order to minimize potential adverse impacts. This initiative will involve market

participants that enter bids and offers into the market as they will be directly affected by the implementation of EDAC - including generators, importers and exporters who transact through the submission of bids, offers and schedules.

SE-61: Dispatch Methodology and Processes: The IESO has initiated dialogue with key stakeholders to discuss both current and future dispatch issues. The initial discussions will help the IESO determine the most effective methods of gathering stakeholder input on this initiative, and help determine the issues and approach for the next phase of this initiative. The future will see new resources with different characteristics from those currently existing in Ontario, and the IESO must ensure that the market maintains sufficient drivers to guarantee reliable and efficient load-following and dispatch capability. The IESO would also like to improve the reliability and capability of the current resources by examining existing dispatch issues.

SE-57: Embedded and Renewable Generation (including periods of surplus baseload generation: Embedded or distributed generation is usually a small scale production of power connected within the distribution network and not having direct access to the transmission network. These generators are typically located close to the electricity consumer. In August 2005, the Ministry of Energy requested that the Ontario Power Authority (OPA) and the Ontario Energy Board (OEB) work together to address barriers to the development of small electricity generating projects using clean or renewable energy sources that are connected to the electricity distribution system in the province. In November 2006, the OPA launched a Renewable Energy Standard Offer Program (RESOP) for the province, and will also be launching the Clean Energy Standard Offer Program (CESOP). Both programs focus on generators under 10 megawatts connected to the distribution system. When connected to the distribution system, these smaller generators can make a significant aggregate contribution to security of supply for Ontario consumers and to achieving the Government's objectives for clean and renewable energy supply. The scope of this initiative includes centralized forecasting, management of minimum load periods (including periods of surplus baseload generation) and development of standards. The goal of this stakeholder plan is to provide stakeholders the opportunity to give feedback to the IESO on the discussion paper and the potential market rule changes highlighted in the paper.

5. Market Evolution Activities

The IESO continues to work with stakeholders to ensure that the electricity market evolves in a manner that encourages reliable supply and improved economic efficiency. Highlights of a few reliability related activities pertaining to market development are outlined below:

Renewables Integration Project:

A high priority for the IESO over the next three years will be meeting our obligations under the GEGEA including the integration of renewable technologies into reliable operation. From an initial expectation of 3,500 MW, the combination of FIT applications and the Korean Consortium project are likely to result in more than 11,000 MW of proposals for renewable generation, of which up to 7,000 MW are expected to be in service by 2012-2013. The

objective of the Renewables Integration Project is to integrate renewables in a way that maintains the efficient and reliable scheduling and commitment of electricity supply on a daily basis. This means optimizing the use of existing and anticipated generation and providing mechanisms to efficiently dispatch variable resources. The project covers a broad range of areas including centralized wind forecasting, dispatch requirements, treatment of and relationships with embedded facilities, management of surplus baseload generation, settlement issues, etc.

Energy Modeling:

As Ontario's supply mix changes, our current focus on capacity will no longer be adequate to ensure reliability of supply in a world with high penetration of variable renewable resources, i.e., resources that have no assured fuel supply to maintain their output. Future-looking detailed probabilistic assessments of resource adequacy (energy, capacity and operability), transmission adequacy and congestion are increasingly becoming an essential requirement, consistent with the growing penetration of renewable generation and with emerging NERC recommendations. The IESO plans to use forward energy simulations to better understand, assess and develop future operating strategies. This new capability will allow the IESO to analyze the impact of potential operating issues resulting from changes planned within and beyond Ontario and to address issues raised by NERC's Integration of Variable Generation Task Force. Of particular importance will be the improvement to provincial and inter-regional planning through the ability to account for the stochastic nature of variable renewable resources such as wind and solar from both a local and a wide-area perspective.

Market Roadmap:

The IESO proposes to develop a market road map that identifies market changes that would benefit Ontario's market structure and support GEGEA objectives. Issues driving the need for a review of Ontario's market strategy include: the complexity of our current market; the need to better integrate contract, market and operational drivers; the role and value of the market and the role of efficient pricing, both generally and in light of developments such as smart grid-enabled demand response; and the importance to Ontario of market co-ordination with surrounding jurisdictions.

6. Connection Assessments

The IESO assesses and documents the impact of each new project on reliability and identifies the necessary system upgrades required to meet IESO reliability standards and to ensure continued reliable system operation.

As required by regulation, every quarter the IESO reports to the OEB the status of renewable projects connection assessments which represent only a subset of all connection assessments performed by the IESO in the period. In addition to renewable projects the IESO performs assessments for transmission system enhancements, modifications and facility replacements, generation and load connections.

In total, between January 1 and November 30 2010, assessments for 64 generation, transmission and load connections to the IESO-controlled grid were completed through the Connection Assessment and Approval (CAA) process and another 55 assessments are currently under way.

A summary of these projects and their detailed reviews can be found on the IESO website at: http://www.ieso.ca/imoweb/connassess/ca.asp

7. Generation Procurement Initiatives

The IESO has provided support to all initiatives announced by the Ministry of Energy and the OPA for new renewable, combined heat and power, and other clean generation resources in Ontario, and for the initiatives undertaken by the OPA in the area of integrated power system planning.

8. Coordinated Regional and Interconnection-wide Transmission Studies

The advent of the NERC functional model and the development of mandatory reliability standards, especially the transmission planning and operations standards, has resulted in increased requirements on the IESO to support inter-area, intra-regional and inter-regional transmission studies and exchange of reliability-related planning and operational information. This is required to demonstrate compliance with those standards and to also ensure that power system developments in the various areas and regions do not adversely impact neighbouring entities. The IESO has participated in such studies through 2010, and has also worked on setting up the necessary work-frame and contacts with neighbouring, intra-regional and inter-regional organizations.

In 2010, the IESO continued to be an active member of the Eastern Interconnection Planning Collaborative (EIPC). EIPC is comprised of 23 entities, mainly transmission and resource planners, of the Eastern Interconnection, led by PJM Interconnection LLC as the primary lead investigator. EIPC is an interconnection-wide planning collaborative which will, through various technical working groups, develop and analyse transmission plans to ensure a coordinated approach to transmission planning at the interconnection level.

C. RELIABILITY STANDARDS, PERFORMANCE AND COMPLIANCE

1. Reliability Standards Compliance

The IESO maintains the reliability of the IESO-controlled grid by monitoring and enforcing compliance with Ontario market rules, as well as reliability standards and criteria established by standards authorities, such as the North American Electric Reliability Corporation (NERC) and the Northeast Power Coordinating Council (NPCC). Through its annual Reliability Compliance Program (IRCP), the IESO ensures that Ontario market participants, including the IESO, report on their applicable reliability compliance obligations and, in case of non-compliance, implement remedial actions that mitigate any adverse impact on reliability. In addition, as a registered entity with NERC and member of NPCC, the IESO

reports annually to NPCC on its compliance status with the reliability standards and criteria that are actively monitored by NPCC's compliance monitoring and enforcement programs.

In 2010, the IRCP monitored compliance of the IESO and Ontario market participants against 70 NERC reliability standards and NPCC criteria. Of these, 56 reliability standards and criteria applied to the IESO and 22 to generators, transmitters and other market participants. The IESO has reported full compliance with NERC high Violation Risk Factor (VRF) requirements and no violations of NPCC sanctionable criteria that are greater than Level 2.With one exception, Ontario market participants have also reported full compliance with the applicable NERC high VRF requirements and no violation of NPCC sanctionable criteria greater than Level 2. The exception refers to a particular generator that was challenged by requirements to become compliant with NERC CIP-002 standard. The IESO is working closely with the affected generator to develop appropriate mitigation plans and apply the required enforcement actions to ensure compliance in this area.

Additional details on the IESO's reliability compliance program may be found at:
http://www.ieso.ca/imoweb/ircp/reliabilityStandards.asp.

2. New or Revised Reliability Standards and Measures

During 2010 the IESO developed positions and provided comments on more than 100 additions or revisions of NERC and NPCC Reliability Standards, Regional Standards, and Criteria. The IESO also provided comments in response to various final orders, notices of proposed rulemaking (NOPR), and clarification rulings issued by FERC, as stated earlier. The IESO consistently advocated Ontario perspectives in the ISO/RTO Council's (IRC) Standard Review Committee (SRC) submissions to NERC and other forums. The IESO has ensured timely reviews and submission of comments for each of these individual activities.

The IESO provides regular updates to market participants on all evolving industry changes, standards development activities, FERC rulings, and U.S. Senate and House hearings and bills which are of relevance. Actions were taken to assist market participants in achieving compliance with NERC and NPCC standards. The IESO continues to ensure that all new or modified certification forms for the IESO Reliability Compliance Program (IRCP) are stakeholdered through the Reliability Standards Standing Committee (RSSC). The RSSC is used as the forum to discuss standards and compliance related issues and concerns with Ontario Market Participants and arrives at solutions and provides guidance on concerns raised. The RSSC also offers an important platform for the IESO to stakeholder important issues, policies, and processes.

For more information on the RSSC, go to www.ieso.ca/imoweb/consult/consult_rssc.asp.

3. Reliability Performance

i. Unsupplied Energy

One industry standard indicator of power system unreliability is the amount of load that is interrupted (unsupplied energy) each year due to planned or unplanned outages. The IESO examines the aggregate performance of the system with respect to unsupplied energy (UE) expressed in system minutes[1] on an overall system basis as well as within 34 defined subsystems or local areas on the basis of UE-MW-minutes.

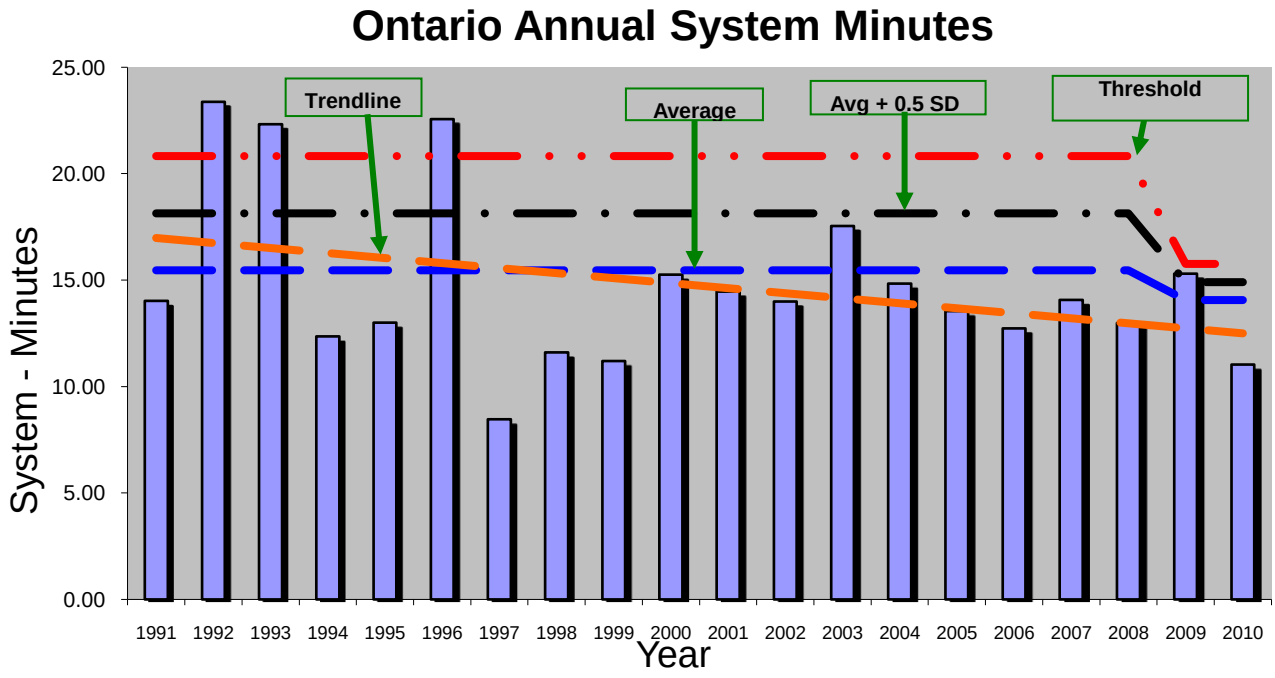
Typically, the UE performance in a reporting year for Ontario as a whole and each of its local areas is compared against fixed benchmarks that are established based on 10 years of historic UE performance. These benchmarks are reviewed periodically and were updated during 2009, with the revised limits becoming effective from January 1, 2009 for a 5-year period. The Ontario UE limit is currently set to 15.75 system minutes.

Ontario's aggregate UE performance over the period 1991 to October 2010 is shown in the following graph. For the period January 1 to October 31, 2010 the system minutes reached 11.03 minutes. If the current trend continues, it is expected that the year-end UE results will be within the current performance limit. This figure was significantly influenced by a single outage in one local area in July. That event affected facilities that serve part of the GTA and contributed over four system minutes to the total UE. The responsible transmitter has completed its investigation of the incident, identified its root cause and put in place measures to minimize the likelihood of a similar occurrence in the future. A closer examination of Ontario's UE 2010 performance to-date reveals that twenty-eight (28) local areas have reported UE within their benchmark values compared to thirty (30) for 2009 and twenty-eight (28) for 2008.

If a local area's UE performance exceeds the allowable benchmark for two consecutive years, it is designated "red-flagged" and the relevant transmitter is required to develop a mitigation plan to improve the local area's performance. If the benchmark is exceeded for only one year, the local area is designated "yellow-flagged". All six (6) local areas that have exceeded their UE thresholds in 2010 have been flagged yellow. There are no red-flagged local areas to-date. This may be compared with the two (2) red-flagged and two (2) yellow-flagged local areas recorded in 2009, and the two (2) red-flagged and four (4) yellow-flagged local areas recorded in 2008.

In summary, Ontario's aggregate unsupplied energy for the period January 1 to October 31, 2010 is within the acceptable yearly limit and current trends suggest that the maximum permissible level will not be exceeded. Also, there are no local areas in which the maximum permissible UE has been exceeded for two consecutive years.

[1] A System Minute is the total interrupted MW-min divided by system peak MW. The System Minutes of Unsupplied Energy tracks the extent to which energy is not supplied to a customer (or group of customers) connected to a delivery point due to interruptions caused by either forced or planned outages of transmission.



ii. NPCC Compliance Audit of the IESO

NPCC conducted one audit on the IESO in 2010 that assessed IESO's compliance with 33 requirements of NERC standards EOP-006, FAC-013, FAC-014, IRO-006 and TOP-003. The audit was conducted off-site over a period of several weeks starting with October 11, 2010.

The NPCC audit found the IESO to be in full compliance with the audited requirements. This means not only that the IESO has adequately developed and implemented the required processes, policies and procedures but also it has successfully provided evidence that these policies and procedures are routinely applied in accordance with the requirements of the audited standards.

iii. Emergency Preparedness

In order to maintain and enhance Ontario's capability to manage reliability and respond to electricity system emergencies, the IESO conducted 6 Power System Workshops across Ontario involving more than 330 individuals from 31 organizations, including the Ministry of Energy.

On February 10th, 7 Distributors and Hydro One participated in the IESO's system restoration exercise which included mitigating security threats to infrastructure.

The IESO and Hydro One participated in a system restoration exercise with our neighbouring Reliability Coordinators and Transmitters from NPCC, MISO and PJM on October 27th.

The IESO led a spring workshop for the Crisis Management Support Team (CMST) to orient new members and assure our preparedness given the upcoming G8 & G20 summits. During the summits the CMST monitored power system status and provided daily situation reports should an electricity emergency develop affecting the summits.

To close out the year's activities the IESO is currently leading the effort to revise Ontario's Power System Restoration Plan to keep us in compliance with the revised NERC Reliability Standards, and implement a plain language version of the Plan.

IESO continues to collaborate with key market participants using a cyber security forum to communicate cyber security issues and the impact of evolving NERC cyber security standards.

The IESO's emergency preparedness activities and the related process can be found on the IESO web at http://www.ieso.ca/imoweb/EmergencyPrep/Preparedness.asp.

iv. Operational Performance Measures

The IESO's reliability related performance impacts participants, stakeholders and the electricity grid and accordingly, measures and standards must be based on accepted standards of performance. In order to achieve its reliability objectives, the IESO continues to measure its results against established NERC and NPCC reliability standards and industry practices.

Current results for the IESO's corporate performance measures are available on the IESO web site at: http://www.ieso.ca/imoweb/corp/corpperformance.asp.

APPENDIX I – SECTION I

Participation and Memberships in NERC, NPCC and ECAR Committees, Task Forces, Subcommittees and Working Groups

NERC
Members Representative Committee (MRC)
Planning Committee
Critical Infrastructure Protection Committee
Finance and Audit Committee
Standards Committee
Compliance Certification Committee (CCC)
Standards Interface Subcommittee
Interchange Subcommittee
Operating Reliability Subcommittee
Personnel Subcommittee
Distribution Factor Working Group
Functional Model Working Group
Interchange Distribution Calculator Working Group
Reliability Coordinator Working Group
Operating Limit Definition Task Force
NPCC
Board of Directors
Full Member Representatives
Reliability Coordinating Committee
Public Information Committee
Regulatory and Government Affairs Working Group
Compliance Committee
Reliability Standards Committee
TFSS (Task Force on System Studies)
TFCP (Task Force on Coordination of Planning)
TFCO (Task Force on Coordination of Operations)
CO-1 (Working Group on Control Performance)
CO-2 (Working Group on Dispatcher Training)
CO-7 (Operational Review Team)
CO-8 (System Operating Managers Working Group)
CO-10 (System Operational Tools Working Group)
CO-11 (Restoration Working Group)
CO-12 (Operations Planning Working Group)
CO-13 (Available Transfer Capability Working Group)
CP-8 (Working Group on Review of Resource and Transmission Adequacy)

CP-10 (Collaborative Planning Initiative)
SS-37 (Working Group on Base Case Development)
SS-38 (Working Group on Inter-Area Dynamic Analysis)
RFC-NPCC Steering Committee
RFC-NPCC Working Group
IST-2 (Telecommunications Working Group)
IST-3 (EMS-SCADA Working Group)
ISO/RTO Council
Communications
Info Tech
Smart Grid Working Group
Markets Committee
Planning
Regulatory
Standards Review Committee (SRC)
NAESB
Board
CEA
Transmission Council (T Council)
Regulatory and Development Task Group (RDTG)
Security and Infrastructure Protection Committee (SIPC)
DOE
Energy Sector Cyber Security Working group (ESCSWG)
Over The Horizon Working Group (OTH)
DHS
Partnership for Critical Infrastructure Security (PCIS)
Cross-Sector Cyber Security WG (CSCSWG) - under PCIS

Section II
2010 TECHNICAL FEASIBILITY EXCEPTION (TFE) STATUS REPORT