

# Grid-LDC Interoperability and Data Sharing Framework

## Purpose:

- To identify current opportunities that local distribution companies (LDCs) have to interact with the IESO to access or submit information and participate in collaboration opportunities; and
- To highlight areas where further collaboration and data sharing opportunities may exist.

## Summary:

The IESO currently makes Market and System Information available to market participants through several mechanisms, which are listed below. In addition, some planning and training activities are conducted on a regular basis that could be of value to the LDC community. Future collaboration opportunities are items that may be of greater importance in the future due to the changing nature of the electricity sector in Ontario.

Tables below include the following:

- Current Interaction with the IESO
  - Information Currently Available Online
  - Collaboration Forums
  - Testing and Confirmation of Operational Data
- Future Collaboration Opportunities
  - Data Sharing and Planning

## Current Interaction with the IESO

Information Currently Available Online		
Item	Location	Value
Current Ontario Demand	<a href="#">IESO Web Site</a>	Provides an indication of provincial demand relative to LDC demand
IESO Market and System Data	<a href="#">IESO Reports Site</a>	Various Physical and Financial Files and Statements used for real time operations and settlements
Data Submission Tools for: <ul style="list-style-type: none"> <li>• Reliability Compliance</li> <li>• Meter Trouble Reporting</li> <li>• Notice of Disagreements</li> <li>• Outage Management</li> </ul>	<a href="#">IESO Portal</a>	On-line methods to submit data to IESO
Ontario Reliability Compliance Program	<a href="#">Reliability Standards Compliance</a>	Access to compliance deadlines and Online Compliance Self-Certification
Market Place Training	<a href="#">IESO Training</a>	Enhance understanding of various aspects of IESO Market and System Operations
Market Rules and Manuals	<a href="#">Market Rules and Manuals</a>	Understanding of obligations and processes for participating in IESO's administered markets, related to: <ul style="list-style-type: none"> <li>• Metering;</li> <li>• System Operations; and</li> <li>• Reliability Compliance.</li> </ul>

Collaboration Forums		
Subject	Medium	Value
Emergency Preparedness	<ul style="list-style-type: none"> <li>• Participation in IESO led Emergency Preparedness Task Force (EPTF)</li> <li>• Participation in Emergency Preparedness Working Groups</li> <li>• Information on <a href="#">Emergency Preparedness</a> page of IESO web site</li> <li>• <a href="#">The Ontario Electricity Emergency Plan</a></li> </ul>	The stakeholder-represented Emergency Preparedness Task Force (EPTF), chaired by the IESO's Chief Operating Officer meets three times a year to support market participants' Emergency Preparedness efforts.

Collaboration Forums Cont'd		
Subject	Medium	Value
Ontario Power System Restoration Plan (OPSRP)	Participation in IESO-led training & workshops: <ul style="list-style-type: none"> <li>• Online OPSRP</li> <li>• Workshops</li> <li>• Exercises (incl. NERC Gridded)</li> </ul>	Each workshop features the review of the bulk electricity system, its operation and IESO/restoration participants' roles in maintaining system reliability during normal and abnormal conditions and/or when restoring the power system following large-scale blackouts using specific interactive table-top exercises.
Cyber/Physical Security Information & Awareness	Participation in: <ul style="list-style-type: none"> <li>• <a href="#">IESO Cyber Forum</a></li> <li>• CEA Security Infrastructure Protection Committee (SIPC)</li> <li>• Canadian Cyber Incident Response Centre (CCIRC)</li> <li>• NERC Electric Information Sharing and Analysis Centre (E-ISAC)</li> </ul>	Sharing of Issues, concerns and mitigations to improve security at all levels
Reliability Compliance	<a href="#">Reliability Standards Standing Committee</a>	Provides market participants with updates on new and revised reliability standards and compliance best practices.

Testing and Confirmation of Operational Data	
Test	Details/Required Information
Satellite Phone testing	Monthly tests to ensure proper functioning of satellite equipment.
Voltage Reduction Tests	Conducted every 18 months to verify amount of reduction in Ontario Demand achieved through 3% and 5% voltage reductions
Load Shedding Simulations and Rotational Load Shedding (RLS) Schedules	Verify the readiness of participants to shed load including the identification of Priority Customer Loads within the LDC system (this might include telecom CO's)

## Future Collaboration Opportunities

Data Sharing and Planning			
Item	From	To	Value
Embedded Generation (EG) Visibility	LDC	IESO	Providing telemetry and registration data for embedded resources to improve visibility of these resources
Solar variable generation forecast	IESO	LDC	Aggregated EG telemetry forecasted at a station level to assist LDC's in forecasting their variable generation outputs
Geomagnetic ally Induced Current (GIC) values	LDC	IESO	<ul style="list-style-type: none"> <li>• Share LDC real-time GIC values, where available to improve monitoring and studies</li> <li>• IESO to share GMD operating guidelines with LDC and provide individualized plan</li> </ul>
Coordination of Load Transfers	IESO	LDC	Having prior knowledge of what transfers are possible as well as load distribution details could help with restoration plans and coordinating difficult outages
Improved understanding of customer consumption patterns	LDC	IESO	LDCs have more experience with changes in consumption patterns of their customers, either from the impacts of time of use prices, conservation efforts or changes in end use technologies