Energy Transformation Network of Ontario (ETNO) Meeting 5 Support Materials
August 21, 2020

Welcome and Introduction Agenda Item 1

Intended outcomes of this meeting:

Discuss and provide feedback on the draft approach to recommendations on improving access to data to enable drafting of recommendation report

Finalize areas of focus for September COVID-19 Impacts meeting

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Summary of Approach Agenda Item 2

Access to data is a fundamental building block that supports other grid modernization efforts

Ontario's access to data framework is incomplete and piecemeal

The potential for positive impacts from deeper/more transformative changes would be undermined if gaps in access to data framework are left unaddressed

Approach to access should be standardized, efficient, cost effective and secure, and promote consumer choice

ETNO's recommendations focus on improving access to customer energy usage data and data from Distributed Energy Resources (DER)

Recommendations to improve access to data are tangible and actionable. May not solve entirety of issue – but will make meaningful progress in key areas

Benefits of Improving Access to Data

Improving access to data in Ontario is a subject that ETNO has dealt with in the past from a high-level perspective
Consistently supported improving access to data in a secure manner and removing barriers to competition in the energy products and services marketplace

Data can be used to develop consumer applications and services, facilitate the deployment and integration of smart building products, develop software, support building energy management, facilitate greater penetration of distributed energy resources and encourage enhanced energy system planning and operations

Improved access to data will also be required to support future developments like: distribution level markets, non-wires alternatives, advanced monitoring and response and further expansion of the smart grid

The value of data in any sector is, in part, a function of who has access to that data and the products and services that they can provide by harnessing it

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Ontario's Current Access to Data Framework
Customer Energy Use Data

The process for accessing customer energy use data lacks standardization across distributors and customer types

Customer electricity usage data is held by Local Distribution Companies (LDCs) and the IESO's Smart Metering Entity (SME). Customer natural gas usage data is held by natural gas distributors

The current framework for accessing this data involves individual requests to LDCs and distributors for data from a subset of customers. This process can be cumbersome, time consuming and, due to a lack of standardization across LDCs and distributors, the data is generally provided in different formats and at different levels of granularity

The existing framework has proven challenging for both third parties trying to access data for client customers, as well as for customers themselves

Especially true of large multi-site businesses who often have facilities located within the service territories of multiple LDCs

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Ontario's Current Access to Data Framework
Data from DERs

Lack of requirements for what data should be provided to distributors from DERs in order to better allow them to plan, monitor and operate their distribution systems

While certain LDCs (e.g. Hydro One) have included requirements within their technical interconnection requirements for connected DERs to supply them with real-time operational data, many LDCs do not

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Principles for Improving Access to Data

In conjunction with guidance provided by ETNO, the Working Group discussed a series of principles that should be adhered to when developing recommendations for improving access to data:

Consumer choice: actions taken should support an expansion of consumer choice for energy products and services by enabling innovation, market access, and competition

Standardization: actions taken should seek to standardize available data across stakeholders to make that data more easily usable

Efficiency: actions taken should improve the efficiency of accessing data by reducing the time, cost, or other resources required to obtain access

Cost effectiveness: actions taken should support reduced energy costs to consumers

Security: actions taken should maintain or enhance customer privacy and data security

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Draft Recommendation Implement Green Button Province-Wide

The Government of Ontario should enact regulation to require the implementation of the Green Button data standard by all Local Distribution Companies and natural gas distributors

Enabling electricity and natural gas customers in Ontario to access near real-time data on their energy consumption to support efforts in demand management

Provide a standard format that third party developers can use to develop and offer customers innovative solutions to help better understand and manage consumption patterns to reduce energy bills

Securely transferring energy data from utilities to customer-authorized third party entities and applications and allowing customers to define the length of data access authorization and revoke authorization at any time

Enabling distributors to work with developers who can offer standardized solutions that give customers access to information on a variety of platforms from online to mobile

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Draft Recommendation Using Smart Meter Data to Facilitate Wholesale Market Participation for Demand Response

The Independent Electricity System Operator should use smart meter data to perform "in-house" measurement and verification for aggregated demand response resources participating in the IESO Administered Markets

Addressing access to data barriers for demand response in the IAMs would empower more residential customers to contribute flexible load into the market

Help to address customer needs around affordability and utilizing enabling technologies to help reduce the cost of energy

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Draft Recommendation - continued

Could lower the cost of capacity from added demand response participants in the market

Cost and time efficiencies created by avoiding the need to collect meter data samples across different LDCs

With M&V done in-house by the IESO and SME, customer privacy and data security would not be compromised

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Draft Recommendation Develop Policies to Enforce Standards for Third Parties Accessing Customer Data

The Government of Ontario should work with the Ontario Energy Board to Develop and Enforce Requirements on Third Parties Regarding the Use, Retention, Disclosure and Disposal of Customer Data

As customer energy usage data becomes more integrated into system analysis and operations, and is used more regularly by third party businesses, it will become more important to ensure that customers and their data are adequately protected once access has been given to that data

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Draft Recommendation - continued

Legal framework surrounding third parties accessing customer energy data should be robust and in-line with the requirements placed on LDCs

Requirements could take the form of minimum standards to which third parties accessing customer energy usage data will be held

The government and OEB could look to the basic standards to which LDCs and natural gas distributors are held regarding customer data and modify as appropriate for application to private sector entities

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Draft Recommendation Enhancing Access to Data from Distributed Energy Resources

The Ontario Energy Board should consult on and make amendments to the Distribution System Code to require the provision of operational data from DERs to LDCs

In order for LDCs to plan, monitor and operate their distribution systems effectively, they need to be able to access data from DERs including their real-time operational behaviours

Access to DER data would yield greater efficiencies in system planning and operations at both the distribution and bulk level (e.g. peak shaving)

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Draft Recommendation - continued

This would help contribute to lower system costs and contribute to greater reliability – would also support higher levels of DER penetration

Could support DER participation in wholesale markets in the future through the sharing of telemetry data with the IESO

This recommendation can propose specific data points

OEB's DER Interconnection Review is an ideal forum to consider and implement

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Discussion Questions

Does ETNO agree with:
The principles for improving access to data?
The approach to structuring the recommendation report?
The specific recommendations?

Are there modifications or additional considerations that need to be incorporated?

Are there alternatives that ETNO should highlight?

Is there additional research/analysis that should be conducted to support the recommendations?

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Sept 17th COVID-19 Impacts Meeting

Presenting Members

Toronto Hydro

Alectra

Peak Power

Rodan Energy Solutions

Main themes to be discussed:

Impacts to customer demands

Impacts to capital budgets and business spending in general

Impacts to regulatory environment (e.g. rates, programs, rules etc.)

How organizations are reacting to the impacts

Which impacts are likely to result in long term changes to how members conduct business and customer demands

Other themes that should be discussed?

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Next Steps and Adjourn Agenda Item 4

IESO to distribute meeting summary notes with discussion outcomes

ETNO Members to review meeting summary notes/propose any suggested changes

ETNO members to provide any additional feedback on the approach to draft recommendations by August 28th, 2020

IESO to circulate a full draft recommendation report on improving access to data by for member review

IESO to coordinate with presenting members for September 17th COVID-19 Impacts meeting

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