

Energy Transformation Network of Ontario (ETNO)

(formerly, Ontario Smart Grid Forum)

Energy Transformation Network of Ontario (ETNO)

Notes of Meeting

Date: **Monday, April 16th, 2018**

Time: 09:00 a.m. to 1:00 p.m.

Location: IESO Offices: 120 Adelaide Street West, Toronto, 16th Floor Boardroom

Forum members attending:

Peter Gregg	ETNO Chair
Neetika Sathe	Alectra (Phone)
Raymond Tracey	Essex Power
David McFadden	Ontario Energy Association
Brian Hewson	Ontario Energy Board (Phone)
David Collie	Electrical Safety Authority
Darlene Bradley	Hydro One (Phone)
Mark Fernandes	Hydro Ottawa (Phone)
Katherine Sparkes	IESO
Alexandr Prieure	NRCan (Phone)
Jatin Nathwani	University of Waterloo

Corporate Partners Committee members and invited guests attending:

Ron Dizy	CPC Chair (Phone)
Linda Wainewright	CPC Vice-Chair
Roy Hrab	Ontario Energy Association

Working Group members attending:

Raed Abdullah	Hydro Ottawa (Phone)
Edward Arlitt	IESO

See **Appendix 'A'** for a cumulative list of open Forum action Items.

{09:00 – call to order}

Agenda Item # 1: Previous SGF Minutes ¹ - DRAFT Minutes of the November 21st, 2017 meeting of the Smart Grid Forum:

The draft minutes of the **March 6, 2018** conference call were tabled with a comment deadline of Thursday, March 15th. No amendments were tabled at today's meeting.

{minutes note: no further amendments were subsequently tabled.}

¹ **MINUTES POLICY:** Since February 28th 2013, ETNO adopted a new policy for reviewing and approving meeting minutes, whereby any draft minutes will be published after the stipulated comment deadline if no material comments are received. It will no longer be necessary to bring unchanged minutes back to the next meeting to reconfirm as "final."

Agenda Item # 2 - DECISION: Nomination of two new members to ETNO

The Chair put forward two nomination proposals for consideration by ETNO members as follows:

1. Nomination from the IESO of Katherine Sparkes as a member of ETNO
2. Nomination from the Ministry of Energy of Karen Clark as an observer member to ETNO

OUTCOME: Katherine Sparkes, IESO was confirmed as member to ETNO and Karen Clark was confirmed as an observer member to ETNO on behalf of the Ministry of Energy

The Chair and members welcomed Katherine and Karen to the ETNO membership.

Agenda Item # 3: External contacts log:

{ see also: ETNO External Contacts Log, version 1.2 circulated with the meeting materials }

OUTCOME: No changes to the ETNO External Contacts Log were tabled at today's meeting.

Agenda Item # 4 Amendments to Terms of Reference:

{see also, DRAFT amendments to ETNO Terms of Reference distributed with the meeting materials}

There was a brief discussion of the ETNO Terms of Reference amendments originally discussed on the March 8th conference call, which refocused the group's mandate on the following main five objectives:

1. *"Act as a Platform for Dialogue amongst Key Stakeholders around Grid Integration*
2. *Provide Policy & Regulatory Recommendations*
3. *Develop design concepts and approaches to DER integration in Ontario*
4. *Capacity-Building, and particularly, assisting the interaction of utilities with other service providers, required to enable a high-DER future*
5. *Information gathering to assist the above activities"*

During the course of today's discussion two further issues were raised and discussed by ETNO members as follows:

- A member raised the possibility of removing the current two-year term for the ETNO chair and recognizing that the Chair shall indeed be the IESO CEO, unless that position is deferred by the IESO CEO.
- A member suggested the creation of a Vice-Chair position to assist the Chair and preside over meetings in the Chair's absence.

Both suggestions were supported by comments made by various members during the discussion.

OUTCOMES:

- 1) On a motion moved by David McFadden and seconded by Peter Gregg, the amendments to the *Terms of Reference* were adopted as tabled.
- 2) It was agreed that a second package of amendments would be brought forward for consideration at the next ETNO meeting as follows:
 - a. Removal of reference to the ETNO Chair being a two-year term and recognizing it as the ex officio prerogative of the IESO CEO.
 - b. Establishment of an ETNO Vice Chair position to assist the Chair and preside over meetings in the Chair's absence.

Agenda Item # 5 – Guest Speaker: Roy Hrab, Ontario Energy Association

{See also, the following meeting materials: i. Ontario Energy Association (OEA) Energy Platform; and, ii. Ontario Energy Association (OEA) Submission to the OEB: "NET METERING FRAMEWORK REGULATORY PROPOSALS EBR Registry Numbers: 013-1913 013-1915 013-1916", January 18, 2018}

The Chair welcomed Mr. Roy Hrab of the Ontario Energy Association, to explain the position of the OEA on a variety of topics related to ETNO's upcoming work. After providing an overview to the work of the OEA and its mandate, Roy mentioned that the organization is actively engaged with the OEB Modernization effort. He then proceeded to outline the OEA's position in a number of areas:

Infrastructure Optimization:

- DERs seen as having a key role to play in this area, and the OEA maintained a technologically neutral stance towards them. Roy further noted that current legislative provisions in Ontario are not technologically neutral and that is an area where the OEA would like to see further focus.

Regulatory Evolution:

- A general recognition that the retail sector needs to evolve in order to realize the full potential of what DERs may bring to the system.
- Flexibility and expedience of key regulatory processes such as licencing is an area of high interest to the OEA and a key building block to a more dynamic DER market at the retail level.

Load Serving Entities, net metering and third party ownership of DERs:

- At the outset, Roy noted that there is a growing interest in all three of these concepts across the Ontario electricity industry – not just at the OEA.
- Each of these concepts are being by the OEA in the context of today's contracted resource environment, and are potential options to develop a more efficient DER market in the future.
- Generally speaking the OEA would prefer a clear delineation between policy, regulation, and operational roles in the sector.

Following Roy's overview of the OEA and its positions, the ETNO group then had an open discussion regarding the ideas raised. During the discussion, the following comments were raised by various ETNO members:

- A member noted that Load Serving Entities (LSEs) were first discussed as an option for Ontario in 1999 and that they would subsume any contracted portfolio. To this another member added that LSEs could take a very long time to implement.
- It was suggested that the retail market needs to do a better job at utilizing the assets at hand in conjunction with market mechanisms. Several members voiced their support of this notion.
- A member raised the possibility of a more holistic valuation of DER-related services – not just cost minimization.
- There was an extensive discussion of what could be improved in Ontario's regulatory environment in order to allow utilities to be more innovative. During this thread of discussion several comments were raised:
 - We need to balance existing infrastructure with DERs AND empower 3rd parties to compete
 - The emerging DER sector needs some oversight but not in the same manner as in the past.
 - The grid needs to assist customers realize value from their DER investments.
- A member observed that the OEB in fact as TWO reports forthcoming in the fall: The modernization panel and a separate report regarding innovation.
- A member suggested that ETNO needs to focus on the ultimate goals of these transformative forces and the importance of market mechanisms to help resolve them. Several members expressed their support of this idea. During this discussion, a member suggested that Distribution System Operators (DSOs) may be a more feasible option for Ontario in the near term and that LSEs would likely fall on a longer-term time horizon.
- Another member suggested that LDCs should be able to participate in DER markets, but Ontario shouldn't put them in a position where the rest of the industry is depending on them to innovate.
- There was an extensive discussion regarding the Ontario Energy Board's lack of oversight over non-licensed third parties that may directly or indirectly participate in the DER market.

Agenda Item # 6 – ETNO Work plan item – Policy recommendations

{see also, main support presentation for today's meeting}

At today's meeting, the group discussed three main objectives:

1. Set the framework for ETNO's development of policy recommendations
2. Review positions already being taken in the province of Ontario by various groups and organizations with respect to future industry structure in a high DER future.
3. Examine the areas most likely to engender philosophical differences of opinion within the industry.

During the ensuing discussion on these topic areas, various members raised the following comments:

- We need to tackle block chains and their potential impact on the industry

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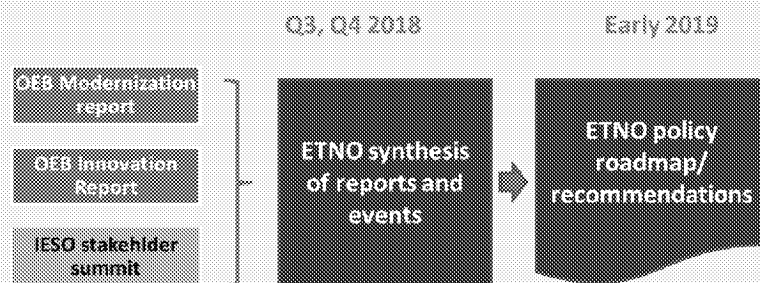
- Telecoms and railway set the stage for the regulatory dilemma in Ontario
- We have a market construct that doesn't reflect the true value that DERs bring to the table, and is further distorted by the Global Adjustment.
- A member suggested ETNO should examine the potential economic benefits of a Distribution System Operator construct and specifically tackle the 'why?' question with respect to this policy topic. Several members voiced their agreement with this notion. Another member added that ETNO should examine this in an Ontario context.
- A member suggested that ETNO connect its efforts with an upcoming event at the University of Waterloo Institute for Sustainable Energy (WISE) in November.

Discussion thread regarding next steps for this work task:

- A member raised concerns that this general topic area may be too broad for ETNO to be able to formulate a policy recommendation at the moment, particularly given the fluidity of policy landscape in Ontario, at all levels in the system. A member suggested that this should drive ETNO to examine issues over the long horizon that won't be superseded by near terms studies and reviews taking place. Another member added that a focus on the technical dimensions might help.
- The above discussion then led to the group considering the potential timelines for a possible ETNO report or recommendation paper.

OUTCOMES: The group generally reached a consensus on the next steps for this work stream that this should involve:

- A synthesis of the reports and recommendations expected later this year
- A presentation of the policy options available in the areas outlined in slide 11 of the support presentation (i.e. i. The future role of LDCs; ii. Public and social benefits of network coordination; and, iii. The future role of Markets in a high DER future)



Agenda Item # 7 – ETNO Work plan item - Stakeholder dialogue and data gathering for an ETNO customer roadmap in a high DER future.

{see also, main support presentation for today's meeting}

The group briefly considered the potential data gathering questions to be posed at the upcoming IESO Electricity Summit on June 11th. During the discussion, the following comments were raised:

- We should be careful with using yes/no questions given the complexity of the issues at hand.
- Some questions should address the end-state goals and benefits sought by DER technologies.
- Some questions should centre on the role that the private sector should play.

ACTION ITEM: All members were asked to consider the potential questions for the June 11th Stakeholder Summit, as presented in today's support presentation, with a view to finalization at the May 15th meeting.

Agenda Item # 8 – Discussion regarding ENTO Membership expansion:

{see also, main support presentation for today's meeting}

During this portion of the discussion, the following general suggestions were made regarding potential new classes of ETNO participants/members:

- A member suggested an organization representing the Information and communications technologies (ICT) sector
- A member suggested that ETNO should periodically receive presentations from recipients of the Ontario Smart Grid Fund.
- Suggestions were made regarding the involvement of other branches of the Ontario government including:
 - Ontario Ministry of the Environment and Climate Change
 - Ontario Ministry of Transportation
 - Ontario Ministry of Economic Development and Growth

Agenda Item # 9 – Update from the Corporate Partners Committee (CPC)

Linda Wainewright provided a brief update in Ron Dizy's absence today. She explained that the CPC has not met since the last meeting, but intends to do so before the May 15th meeting.

Overall the CPC is pleased with the newly focused mandate of ETNO and is particularly interested on addressing barriers to DER market access (see also minutes of last conference call).

The group will discuss the policy issues raised at today's meeting and report back on May 15th.

Agenda Item # 10 Literature review

{see also, literature review presentation for today's meeting}

Edward Arlitt provided a presentation on recent literature focused around the following U.S. developments:

- FERC order 841 and industry response
- FERC DER proceedings
- U.S. Energy Information Administration – *Annual Energy Outlook* and recent DER growth figures

The specific citations for the items discussed at today's meeting were as follows:

1. U.S. Energy Information Administration, *"Electric Power Monthly Data for January 2018"* Release Date: March 23, 2018
2. U.S. Energy Information Administration, *"Annual Energy Outlook 2018"* Release Date: February 6, 2018
3. U.S. Federal Energy Regulatory Commission (FERC), *"Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators, Order No. 841"* Docket Nos. RM16-23-000, AD16-20-000
4. Electric Power Research Institute (EPRI), *"Independent System Operator and Regional Transmission Organization Energy Storage Market Modeling Working Group White Paper - Current State of the Art in Modeling Energy Storage in Electricity Markets and Alternative Designs for Improved Economic Efficiency and Reliability"* March 29, 2018
5. U.S. Federal Energy Regulatory Commission (FERC), *"Distributed Energy Resources Technical Considerations for the Bulk Power System"*, Staff Report Docket No. AD18-10-000, February 2018

{adjournment --- 13:00}

Next Smart Grid Forum Meeting: May 15th, 2018 IESO offices

2018 ETNO Nominal meeting schedule:

- Q1 REVISED: Monday April 16, 2018 – in-person meeting
- Q2: Tuesday, May 15, 2018 – in-person meeting
- Q3: Tuesday, September 18, 2018 – in-person meeting
- Q4: Monday, December 3, 2018 – in-person meeting

IESO Stakeholder Summit:

- June 11, 2018, Sheraton Centre Hotel

Potential 2018 ETNO conference call dates (to be confirmed):

- Tuesday, June 19, 2018
- Monday, October 15, 2018
- Tuesday, November 13, 2018

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APPENDIX 'A'

S.G.F. OPEN Action Items as of November 21,, 2017

See also: *Smart Grid Forum Recommendation Tracking Log*

Action Item	Date Assigned	Assigned To	Target Completion	Status
IESO staff to compile a summary list of Terms of References of other policymaking initiatives in Ontario that intersect with ETNO's work.	March 8, 2017	IESO	May, 2018	OPEN
Extend invitations to Ministry of Energy Smart Grid Fund consultations scheduled for December, 2017	November 21, 2017	IESO	COMPLETE	COMPLETE
David McFadden, Bruce Campbell and Jatin Nathwani to coordinate an invitation to the Energy Council of Canada to extend an invitation to speak at the Forum and possible further dialogue.	Oct. 26, 2015	Campbell McFadden Nathwani	COMPLETE	COMPLETE
All Forum and CPC members are encouraged to leverage the current Forum report and promote further discussion of innovation-related issues.	Sept. 29, 2015	Forum and CPC	Open	UNDERWAY
Where applicable, Forum members shall identify an individual that may be contacted in regards to the relationship that their organization holds with an external smart grid organization listed in the External Contacts Log.	Dec. 10, 2014	Forum	Open	UNDERWAY
Forum members shall bring forth their suggestions for an appropriate regulatory filing advocating for an innovative project that could be supported by the Forum as a whole.	Dec. 10, 2014	Forum	Open	Reviewed, June 21, 2016

CLOSED Action Items: As of October 12th, 2010 closed action items are no longer listed in the minutes as per the agreement reached at the September 7th, 2010 Forum meeting. The removal of an open action item from the above list constitutes the completion of that item.