

Energy Transformation Network of Ontario (ETNO)

(formerly, Ontario Smart Grid Forum)

Energy Transformation Network of Ontario (ETNO) DRAFT Notes of Meeting

Date: **Tuesday, May 15th 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:

David McFadden	ETNO Vice-Chair
Neetika Sathe	Alectra
Raymond Tracey	Essex Power
David Collie	Electrical Safety Authority
Daila Dzintars	Hydro One
Mark Fernandes	Hydro Ottawa
Katherine Sparkes	IESO
Bill Milroy	London Hydro
Jonathan Dogterom	MaRS Cleantech
Anjali Wadhera	NRCan (Phone)
Francois Trofim-Breuer	Union Gas
Jatin Nathwani	University of Waterloo

Corporate Partners Committee members and invited guests attending:

Ron Dizy	CPC Chair
Linda Wainewright	CPC Vice-Chair
Teresa Sarkesian	Electricity Distributors Association

Working Group members attending:

Raed Abdullah	Hydro Ottawa (Phone)
Edward Arlitt	IESO
Brett Smith	Ontario Ministry of Energy

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

{09:15 – call to order by David McFadden, at the request of Peter Gregg who was unable to attend today's meeting}

Agenda Item # 1: DECISION: Additional amendments to the ETNO Terms of Reference and approval of a new Vice-Chair

As the first order of business, the group considered additional incremental amendments arising from the April 16th meeting (see minutes) to the *ETNO Terms of Reference* as follows:

- Removal of reference to the ETNO Chair being a two-year term and recognizing it as the ex officio prerogative of the IESO CEO.
- Establishment of an ETNO Vice-Chair position to assist the Chair and preside over meetings in the Chair's absence.

OUTCOME: The question was put the group, and the incremental amendments to the Terms of Reference were unanimously adopted.

Energy Transformation Network of Ontario (ETNO)

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Katherine Sparkes then immediately put forward a nomination proposal on behalf of the IESO, that David McFadden be appointed as the new Vice-Chair of the Energy Transformation Network of Ontario. The nomination was immediately seconded and put to the group.

OUTCOME: David McFadden was appointed the Vice-Chair of ETNO under the provisions of the newly-amended Terms of Reference.

Members of ETNO congratulated David on his appointment.

Agenda Item # 2: Previous SGF Minutes¹ - DRAFT Minutes of the April 16th, 2018 meeting of the Smart Grid Forum:

The draft minutes of the **April 16th, 2018** meeting of ETNO were tabled with a comment deadline of Tuesday, May 22nd. No amendments were tabled at today's meeting.

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

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.

A member commented that ETNO should continue to cultivate its relationship with the World Energy Council and several members voiced their agreement to this.

{minutes note: The group last received a presentation from Mr. Graham Campbell of the Energy Council of Canada (the Canadian affiliate of the World Energy Council) on March 8th, 2017 – see previous minutes for details.}

Agenda Item # 4: Guest Speaker Teresa Sarkesian, President and CEO, Electricity Distributors Association (EDA), in a joint presentation with Ray Tracey, CEO, Essex Power (ETNO member)

{see also: i. EDA presentation "Roadmap to a Brighter Ontario", and ii. Essex Power presentation, "Ontario LDCs are evolving into Tomorrow's Digital Utility TODAY"}

The vice-chair welcomed Teresa on behalf of the group. Teresa's presentation centred around two recent reports of the EDA as follows:

- 1) The Power to Connect: EDA Vision, February 2017
- 2) *The Power to Connect: Advancing Customer-Driven Electricity Solutions for Ontario*, February 2018

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."

In the first of these papers, the EDA envisioned Local Distribution Companies (LDCs) evolving along three dimensions of growth as follows:

- 1) **“Enabling DERs** – operational and planning responsibilities; integrated network; DER third-party providers and customers can “plug-n’-play”
- 2) **Integrating DERs** – expanding business beyond traditional “poles and wires” can yield efficiencies and infrastructure savings
- 3) **Control/Operation of DERs:** acting as fully integrated network orchestrators (FINOs) provides value to customers and the system”

Teresa then spoke to nine key solution areas outlined in the second of the two papers noted above:

1. Levelling the playing field for DERs
2. Improved definition of DERs and potential services
3. Improving DSPs through investments in grid-visibility
4. Enabling ownership of DERs
5. Guidelines for rate-basing of DERs and DER-enabling assets
6. Coordinating and decentralizing procurement of resources and DERs
7. Allow LDCs to control and operate DER assets
8. Shared services of LDCs with respect to control and operations
9. Development of LMP+D

Ray Tracey’s presentation:

Ray’s presentation provided insights into various concepts that were being explored by Essex Power including;

- Digital Utility Data Hubs
- Energy storage growth fueled by current Global Adjustment policy
- Providing greater visibility into DER operations

Each of these concepts was presented in terms of examples that Essex Power was already carrying out today, such as larger DER assets being dispatched on feeders connected to Kingsville TS (see presentation for details). Ray’s presentation also provided examples of the informational picture that the Digital Utility Data Hub already provides to Essex Power. The presentation culminated in an example of how Artificial Intelligence technologies might be applied in order to further integrate and optimize these information feeds.

Comments and discussion:

Over the course of Teresa and Ray’s presentations various ETNO members registered the following comments and questions:

Energy Transformation Network of Ontario (ETNO)

(formerly, Ontario Smart Grid Forum)

- During the presentations, there was a significant discussion regarding the potential distorting economic signals to DER investment from current Global Adjustment policy and the Fair Hydro Plan.
- Several members discussed how a third party might aggregate DER data instead of the LDCs. This led to a significant discussion regarding whether or not it should be automatically assumed that the LDC would fulfill such a role and the public policy imperative in this area. During the course of this discussion, other members also wondered if it was appropriate to assume that the LDC would fill the role of the Distribution System Operator (DSO). To this a member commented that LDCs should focus on what they do best and avoid areas of business that are not unique to their traditional roles.
- There was a discussion of the idea of a “missing market” in the distribution system for DERs to sell their services into. Some members observed that the technical capabilities of DERs was now outstripping the ability of distribution system to properly evaluate and compensate asset owners for those services.
- A member observed that the financial question is absolutely crucial and offered his opinion that the business case needs to lead the policy.
- A member noted that information sharing across network participants (LDCs, DSOs, Third Parties) was the “missing topic” that needs to be further developed by ETNO. This will be particularly important as the Internet of Things continues to expand and be optimized by AI technology. Several members expressed their support of this notion

The Vice-Chair thanked both Ray and Teresa for their presentations on behalf of the group.

Agenda Item # 5: ETNO Work plan item – data gathering for upcoming IESO Electricity Summit

{see also: i. meeting support presentation; and, ii. revised list of survey questions distributed after the meeting}

The group jointly reviewed the list of proposed questions to be posed during the “*Transforming the Energy Network*” and, “*Responding to Consumer Drivers*” panel sessions at the upcoming IESO Electricity Summit on June 11th. Data will be collected through electronic voting/feedback through the “SLI.DO” system to be used during the conference and a follow-up survey immediately after the conference (via “Survey Monkey”).

OUTCOME: The group arrived at a revised list of survey questions to be used at the June 11th Electricity Summit, for the “*Transforming the Energy Network*” and, “*Responding to Consumer Drivers*” panel sessions. Key changes included paring down the number of questions and simplifying some of those that remained. The final distribution of the questions across the various panels will also be determined by each of the panel chairs.

Agenda Item # 6: Update from the Corporate Partners Committee (CPC):

Today’s update from the Corporate Partners Committee was delivered by Linda Wainewright, who began by providing a recap of the group’s April 16th meeting. During that discussion the group received

Energy Transformation Network of Ontario (ETNO)

(formerly, Ontario Smart Grid Forum)

an overview from Edward Arlitt, regarding the same Berkeley Labs paper that will be examined in today's Literature Review.² The CPC will be reviewing this paper in more detail at an upcoming meeting. Furthermore the CPC intends to hold a regular meeting schedule over the summer with a view to bringing specific policy positions back to future ETNO meetings in September and December.

Agenda Item # 7: Upcoming Smart Grid Events

{see also, meeting support presentation}

OUTCOME: During its discussion of upcoming events, ETNO agreed to hold a conference call in June to debrief on the June 11th IESO Electricity Summit.

{Minutes note: The meeting was subsequently scheduled for Friday, June 22nd at 10:00 a.m.}

Agenda Item # 8: Literature review

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

Edward Arlitt (IESO staff) gave a presentation focusing on the latest paper from the Lawrence Berkeley National Laboratories "Future Electric Utility Regulation" series as follows:

- Lawrence Berkeley National Laboratories, "Value-Added Electricity Services: New Roles for Utilities and Third-Party Providers" Release Date: October, 2017

Today's paper further elaborated on Lawrence Berkeley National Laboratories' ongoing examination of the roles that might be played by public utilities in a high-DER future. This paper presented three different viewpoints from the following U.S.-based organizations:

- 1) **"Institute for Electric Innovation (IEI):** *"The Edison Foundation Institute for Electric Innovation focuses on advancing the adoption and application of new technologies that will strengthen and transform the power grid."*
- 2) **Advanced Energy Economy (AEE):** *"AEE is an organization of businesses using policy advocacy, analysis, and education to bring about a prosperous economy based on secure, clean, affordable energy."*
- 3) **National Association of State Utility Consumer Advocates (NASUCA):** *"NASUCA's members are designated by the laws of their respective jurisdictions to represent the interests of utility consumers before state and federal regulators and in the courts"*³

After Edward introduced the group to the policy positions being taken by each organization, various ETNO members registered the following comments:

- We need to directly confront the question regarding the future of distribution-level markets over a 15-year time horizon.

² Lawrence Berkeley National Laboratories, "Value-Added Electricity Services: New Roles for Utilities and Third-Party Providers" Release Date: October, 2017

³ Quotes taken from the websites of each organization, accessed on May 3, 2018

Energy Transformation Network of Ontario (ETNO)

(formerly, Ontario Smart Grid Forum)

- Markets should be a front-and-centre topic in the upcoming Electricity Summit on June 11th. Specifically, we need to clarify how DERs fit into the IESO's Market Renewal program. To this a member added that this should be a focus of a future ETNO meeting, and several members agreed.
- The expiration of the Fair Hydro is one of several known, future milestones that should be factored into ETNO's policy positions.

OUTCOME: It was generally agreed to map future milestones at an upcoming ETNO meeting, as part of the ETNO policy formulation process.

{Minutes note: The meeting was subsequently scheduled for Friday, June 22nd at 10:00 a.m.}

{adjournment – 12:55}

Next Smart Grid Forum Meeting: June 22nd conference call, 10:00 a.m. to 11:00 a.m.

2018 ETNO Nominal meeting schedule:

- Q1 REVISED: Monday April 16, 2018 – in-person meeting
- Q2: Tuesday, May 15, 2018 – in-person meeting
- Q2: Friday June 22nd, 2018 – Conference Call
- 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):

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

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APPENDIX 'A'

OPEN Action Items as of May 15, 2018

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	COMPLETE	COMPLETE
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.