

Ontario Smart Grid Forum

Ontario's Smart Grid Forum Notes of Meeting

Date: **Tuesday, February 9, 2010**
Time: 09:00 to 16:00
Location: IESO Minto Plaza Office, Main Boardroom
655 Bay Street, Suite 410
Toronto, ON

Forum Members Attending:

David Collie	Electrical Safety Authority
Wayne Smith	Hydro One
Paul Murphy	IESO
Don Tench	IESO
Jon Norman	Ministry of Energy and Infrastructure
Brian Hewson	Ontario Energy Board
David McFadden,	Ontario Centres of Excellence
Dan McGillivray	Ontario Centres of Excellence
Paul Shervill	Ontario Power Authority
Ivano Labricciosa	Toronto Hydro
Craig Martin	TransCanada
Jatin Nathwani	University of Waterloo
Jim Keech	Utilities Kingston (by telephone)
Michael Angemeer	Veridian Corporation

Working Group Members Attending:

Annamaria Cross	Ministry of Energy and Infrastructure (by telephone)
John Mulrooney	PowerStream
Joshua Wong	Toronto Hydro

Other attendees:

Grant Buchanan	President, S & C Electric Canada Ltd. ¹ (by telephone, for Item # 3 only)
Edward Arlitt	IESO
Jerry Chwang	Ministry of Energy and Infrastructure
Kaleb Ruch	Ministry of Energy and Infrastructure (by telephone)
Usman Syed	Ministry of Energy and Infrastructure

09:00 – call to order, attendance, and confirmation of the agenda

The Chair proposed, and it was agreed, that the discussion of the Smart Grid Opportunities Fund be moved up to Agenda item # 3. The Chair also proposed, and it was agreed, that today's meeting of

¹ Representing the Canadian Electricity Association (CEA)

Ontario Smart Grid Forum

Forum would take an expected call from a representative of the Canadian Electricity Association (CEA) at 11:00 a.m. in regards to their involvement with the Smart Grid Partners Committee.

Agenda Item # 1 – Minutes of previous meetings:

Minutes of the December 14th meeting of the Smart Grid Forum:

Having received no further comments to the December 14th minutes by the previously assigned deadline of **Monday, January 25th** the minutes were declared as final.

Agenda Item # 1: Minutes of the January 18th meeting of the Smart Grid Forum:

The draft minutes of the January 18th meeting of the Forum were tabled with an **ACTION ITEM** to provide comments by **Friday, February 12th** (no comments to these minutes were tabled during today's meeting).

Agenda Items # 2: "Review alignment of the developing Ontario Smart Grid Roadmap policies with those guiding the U.S. National Institute of Standards and Technology Interoperability Framework."

Edward Arlitt (IESO) took the Forum through a summary PowerPoint presentation which complemented a discussion paper regarding the same topic and previously circulated to the Forum. Both the presentation and the discussion paper provided a summary reconciliation of the high-level Ontario Smart Grid Policy Roadmap statements (as they stood at January 28th) with the policy drivers behind the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) Smart Grid Interoperability Framework.²

During the presentation questions were raised which resulted in specific action items for IESO staff:

- **ACTION ITEM:** To provide a list of Ontario individuals and organizations contributing to the development of the NIST Smart Grid Interoperability Framework.
- **ACTION ITEM:** To provide information regarding the policy stance of the U.S Federal Energy Regulatory Commission (FERC) towards smart grids.
- **ACTION ITEM:** to examine the *IESO Market Rules* from the standpoint of whether or not they present any barriers to participation of load aggregators, and scheduling service providers in the wholesale market or otherwise conflict with the smart grid interoperability framework.

Slide # 10: (Comparison Summary - "Utility Flexibility") some Forum members took issue with the characterization that the Ontario policy roadmap statement regarding power quality might be "divergent" with the NIST policy statement. It was pointed out that a very similar discussion took place during the Working Group meeting that had taken place the previous week. During the discussion, at least one of the Forum members pointed out the importance of this particular policy statement as it had the potential to trigger an over-investment in infrastructure if it was not handled properly. The Forum

² Specifically, "*NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 1.0.*"

Ontario Smart Grid Forum

members agreed to return to this issue during the policy roadmap discussion scheduled later in the agenda for today's meeting.

Agenda Item # 2 – “Review Proposal for the Smart Grid Opportunities Fund”

Dan McGillivray (OCE) presented a discussion paper (“*Smart Grid Opportunities Fund*”) and backgrounder document from the Ontario Centres of Excellence, outlining a proposal regarding the administration of the Fund, and potential project selection criteria (see paper for details). In addition to the potential projects listed in the backgrounder document, Dan pointed out that he is continuing to accumulate a growing list of such projects.

During the discussion, Dan pointed out that it was the OCE's position that Ontario must differentiate itself from the U.S. approach by focusing on true innovation and development of export markets. In addition, Local Distribution Companies (LDCs) could and should play a pivotal role in this effort as they can ensure that investment is accrued from the 'rate base' as opposed to the 'tax base.'

Forum member comments to this item:

- One Forum member expressed his doubts that Ontario could find a viable niche area with respect to electric vehicles and “micro-grids.”
- Another member suggested that the best approach to developing a final proposal would be to work backwards from the desired end state.
- A Forum member suggested that in light of this discussion the role of the LDCs needs to be clarified with respect to this fund.
- Jon Norman (MEI) indicated that a submission to Treasury Board would need to be prepared and it would likely be essentially to target commercialization as a key objective if the proposal was to have a reasonable chance of succeeding.

11:00 a.m. – As agreed at the outset of the meeting, the Forum temporarily departed from this Agenda Item to allow for a discussion with Grant Buchanan, representing the Canadian Electricity Association (CEA) regarding their Corporate Partners Committee and possible role with respect to the SGF (see also, January 18th meeting minutes).

Agenda Item # 3 – “Canadian Electricity Association (CEA) Corporate Partners Committee”

Mr. Grant Buchanan, representing the Canadian Electricity Association (CEA) Corporate Partners Committee joined the conference call and Don Tench (IESO) proceeded to pose a series of questions regarding the current structure and workings of the committee. During this conversation, several features of the current committee structure came to light as follows:

- The Corporate Partners Committee is chaired by Grant.
- The Chair of the committee also has a seat on the CEA Board.
- The Corporate Partners Committee holds an annual meeting with each of the constituent CEA councils.³
- Full membership in the Corporate Partners Committee requires an annual fee.

³ Namely: Generation, Transmission, Distribution, Customers, and, Power Marketing – source: CEA website.

Ontario Smart Grid Forum

- Membership is open to any organization that provides goods and/or services to the Canadian electricity industry and it is not necessary for that organization to be Canadian in order to hold such membership.

The question was raised as to whether or not the Corporate Partners Committee would take issue with the Ontario-based focus of the Smart Grid Forum. Grant Buchanan expressed his thoughts that this likely would not be an issue. Another question posed to Grant was whether or not it was possible for other organizations to participate in this effort without becoming full-fledged members of the CEA. Grant felt this might be possible, but pointed out that currently all members of the Corporate Partners Committee are indeed CEA members.

ACTION ITEM: The Forum agreed to compile a list of desired, ‘Ontario-based’ organizations both for the CEA, and for the purposes of issuing a joint CEA/SGF invitation to those organizations to join.

The question then arose as to how the CEA and the SGF would facilitate meetings of such a large number of organizations. It was agreed that such meetings would need to focus around a series of specific, structured questions in which sufficient context and background information is provided to the group well in advance of such meetings in order to maximize their effectiveness.

ACTION ITEM: Both the SGF and the CEA Corporate Partners Committee would consult their respective schedules with a view to perhaps holding an initialization meeting (likely by conference call) on the **afternoon of Tuesday, March 9th**.

11:25 a.m. – Grant Buchanan left the conference call, and the Forum returned to Agenda Item # 2.

Continuing Agenda Item # 2 – “Review Proposal for the Smart Grid Opportunities Fund”

Jatin Nathwani (University of Waterloo) walked the Forum through his discussion paper entitled, “*Action Plan for Smart Grid Investments in Ontario*” (see paper for details). At the outset, Jatin stressed that the Smart Grid Opportunities fund highlighted the importance of a comprehensive policy framework in order to make sure that it is effectively used.

During the discussion, Jon Norman emphasised the first near-term priority is to preserve the fund beyond the expiration of the current fiscal year.⁴ In addition, the proposal to Treasury Board must avoid any cross-subsidization of the rate base or overlap with other, similar programs.

A Forum member observed that the Fund could be in serious jeopardy, because it has already taken a long time to develop a proposal. That member further observed that the OCE is therefore in the best position to move quickly and open discussions with the relevant parties.

A Forum member emphasized that the first step here, is to define a smart grid strategy and then demonstrate how the plan for the Fund fits into that proposal. That member suggested that while innovation is certainly an important part of the strategy, it was not clear to him if that was what the Fund itself was actually intended for. On this point, another Forum member felt that the wording of the Fund’s budget allocation statement in the *2009 Ontario Budget* was potentially very restrictive and suggested that maybe a meeting with the Ontario Ministry of Research and Innovation (MRI) might be an important next step.

⁴ The Province of Ontario’s fiscal year runs from April 1 to March 31 – source: Ontario Ministry of Finance.

Ontario Smart Grid Forum

Paul Shervill (OPA) observed that there seems to be a lot of similarities between the Smart Grid Opportunities Fund and similar such funds administered by his own organization and posed the question whether or not they should be combined.

The Chair posed the question to the group as to whether or not the Forum should make a specific suggestion as to what the focus of the Smart Grid Opportunities Fund should be. On this point a member stated that the Forum should provide such advice, but another Forum member was quick to warn that the Forum should not be recommending allocations of funds to specific Funds without a clearly defined process and selection process in place.

A discussion about timing of activities ensued, and it was generally felt that if the Forum was to provide any input into the preservation of the fund beyond the current fiscal cycle, action must be taken this month.

ACTION ITEM: OCE to facilitate a joint meeting with the Ministry of Energy and Infrastructure and the Ministry of Research and Innovation. Other Forum members may be asked to contribute to this effort as required.

ACTION ITEM: Dan McGillivray to distil and combine elements of Jatin's paper and the OCE proposal presented at today's meeting into a short (maximum 2 page) letter aimed at a Cabinet-level audience. IESO staff and other Forum members may be asked to contribute to this effort as required.

12:30 – 1:00 - Lunch Break

Agenda item # 4 – “Continuing discussion of smart grid policy road map”

{Note: This portion of the minutes taken by MEI staff}

Jon Norman (MEI) thanked Smart Grid Forum members and their staff for efforts in putting together Principles. What follows, is an account of comments that arose during discussion of each of the smart grid policy areas.

The group went through the general topic area, 'Broad Principles' at a high level since it was discussed at the previous meeting.

- “Customer Value” – no issues
- “Coordination” – no issues
- “Interoperability” – group agreed that it lines up well with NIST
- “Privacy” – the IPC is very interested in smart grid, LDCs should start thinking about nesting-in privacy plans with their overall smart grid plans, ie. Need to be proactive in the planning process.

The Forum then discussed the Utility Flexibility principles:

“Distributed Renewable Generation”

- Some discussion around the use of the term ‘distribution infrastructure.’ The group agreed that a more accurate description would be, ‘distribution system infrastructure.’

Ontario Smart Grid Forum

- Generators also need to support the infrastructure that supports distributed generation, i.e. it's not just LDCs that needs to support costs of implementing distributed generation, generators that connect to the system should have obligations also – should be a partnership approach, in some cases it may be cheaper for a generator to implement flexibility in the system. For this principle to be effective it needs generator buy-in also.
- There was some discussion around whom the smart grid principles would apply to and what the best way to get the principles out there is, i.e. Directive or Regulation?
- If the principles are focused on just LDCs then a directive to the OEB is enough, if it needs to be broader than LDCs than we need more of a preamble.
- Jon made the point that this document will also serve as a communications document and therefore use of lay terms is also effective in getting the message of smart grid out to broader public.

“Visibility”

- Visibility can also be used by utilities to provide customers with information that they may not have had before, for example, a utility may be able to feedback to customers on how quickly grid comes back up.
- Visibility is important for enablement of generation, providing information back to the consumer, and coordination between local and global systems.

“Reliability”

- The Forum questioned why Reliability is not a Broad Principle and it was suggested that perhaps it should be added within the Customer Value principle.

“Control and Automation”

- This principle should not just be focused on the self-healing aspects of the smart grid. Automation can also help faster manual restoration.
- Need to keep in mind that “Wherever practical” needs to be balanced with cost effectiveness, i.e. there are some cases where things need to be done to support objectives like safety and security, however, in other areas, you need to consider customer value (i.e. balance costs).
- The “Where practical” clause makes sense in certain parts of the document and where it makes sense, the regulator always has the cost consideration as part of its checks and balances because it is governed by statutory objectives which take cost into account.
- The “Where practical” clause also puts different pressures on LDCs with different amount of resources – LDCs need to consider their own plans for smart grid as well as the plans of their neighbours....under “Utility Flexibility” we may need to add a “Regional Planning” principle but we should not overlap the coordination principle.

“Operational Security”

- This is redundant with the Broad Principle, the group suggested removing it.

“Adaptive Infrastructure”

- **ACTION ITEM:** look up the word, ‘extensibility’ and make sure it makes sense in this definition.
- Typically electricity infrastructure lasts 20 years – how do you plan for the future when the horizon of assets is so long?

Ontario Smart Grid Forum

“Encourage Innovation”

- How does this apply to LDCs vs. other non-regulated entities?
- Principles are mainly directed at regulated entities.
- Generally, regulations are much more operative statements, Brian is not sure how these principles would fit into a regulation, they may fit better as a policy directive that could be sent to the OEB and OPA.

“Maintain Pulse on Innovation”

- The group generally had an issue with the name of this topic area and felt there was a need to rethink it.
- Many of the statements in this document are fundamental to the success of smart grid but are not necessarily the responsibility of LDCs – we can’t lose focus of these...further dialogue with our corporate partners on this principle may be useful.
- We may need to test these principles on the wider stakeholder community, how can this be done without compromising the policy development process?
- We need to get clarity on the roles and responsibilities of these principles.

Next step is for MEI to engage the Minister on basic smart grid slide deck, and then talk about the principles and what the roles and responsibilities are to implement the principles. Then, we will have a better idea of whether it should be a regulation or directive and who the principles should be targeted at.

Turnaround of these principles in a timely fashion is important – 25 LDCs are currently building their rate cases for submission in June – these principles would help guide them on their smart grid asks.

We need to consider how we use the partners network to get feedback on our principles.

4:00 p.m. – Adjournment.