

# Ontario Smart Grid Forum

## Ontario Smart Grid Forum Notes of Meeting

Date: **Tuesday, February 8<sup>th</sup>, 2011**  
Time: 09:00 to 12:30  
Location: IESO Minto Plaza Office, Main Boardroom  
655 Bay Street, Suite 410  
Toronto, ON

### Forum Members Attending:

Paul Murphy	IESO (Forum Chair)
David Collie	Electrical Safety Authority
Don Tench	IESO
Wayne Smith	Hydro One
Dan McGillivray	Ontario Centres of Excellence
David McFadden	Ontario Centres of Excellence
Brian Hewson	Ontario Energy Board
Jon Norman	Ontario Ministry of Energy
Mario Chiarelli	Ontario Power Authority
Jatin Nathwani	University of Waterloo
Ivano Labricosa	Toronto Hydro

### Working Group Members Attending:

David Curtis	Hydro One
Raed Abdullah	Hydro Ottawa (by phone)
Edward Arlitt	IESO
Usman Syed	Ontario Ministry of Energy
John Mulrooney	PowerStream
Joshua Wong	Toronto Hydro

### Corporate Partners Committee members attending:

Shelley Lewis	Chair, Corporate Partners Committee
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### Observer in Attendance:

Tyler Hamilton            CBE Research and report writer engaged by the Forum

See **Appendix A** for a cumulative list of Open Forum Action Items.

### 09:15 – call to order

### Agenda Item # 1: Previous SGF Minutes

#### Final Minutes of the December 7<sup>th</sup> meeting of the Smart Grid Forum:

The minutes of the **December 7<sup>th</sup>** meeting were tabled as final and no further amendments were raised at the meeting.

#### DRAFT Minutes of the January 17<sup>th</sup> meeting of the Smart Grid Forum:

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The draft minutes of the January 17<sup>th</sup> 2010 meeting were tabled with a comment deadline of February 22<sup>nd</sup> 2011.

### **Agenda Item # 5a: Chair's Debriefing of the recent Canada/U.S. Clean Energy Dialogue Conference ("Smart Grids in the North American Context: A Policy Leadership Conference") co-hosted by the IESO and the University of Waterloo Center for International Governance Innovation (CIGI).**

Paul Murphy gave an overview to what he described as a highly successful conference held in Waterloo (January 24/25 2011) covering a wide range of issues. He also thanked various members (specifically Don Tench, Wayne Smith, Usman Syed (on behalf of Jon Norman), and Shelley Lewis) for their participation on the discussion panel devoted to the activities of the Forum and the Corporate Partners Committee.

A Forum member commented that his impression was that the federal government viewed the conference as a necessary work task as part of the Canada/U.S. Clean Energy Dialogue, but may not have an ongoing interest in it.

It was pointed out that a summary of the conference proceedings is currently being prepared.

### **Agenda Item # 4: Report back from the Corporate Partners Committee regarding smart grid success measurement criteria.**

(see also, distribution item: Revised Success Metrics)

Shelly Lewis, Chair of the Corporate Partners Committee, gave an overview to the latest draft of the smart grid success metrics that were circulated to Forum members. This latest draft has taken on a similar (but not identical) format to the Smart Homes Roadmap, including a Statement of Purpose, a near-term/longer-term development path and long-term Performance Targets.

Once the overview was complete, there was an extensive discussion of the metrics themselves. Below, is a sampling of some of the major comments and points of discussion that ensued:

- Who should be responsible for collecting and reporting this information? On this point it was generally agreed that the Forum should not be institution that has ongoing responsibility over this.
- A Forum member expressed his concern that presently there is nothing to compel generators to disclose environmental data necessary for the carbon content metric.
- A Forum member suggested that the Ontario Energy Board should compel licenced entities to provide the necessary data for these metrics as part of their licence conditions.
- A member commented that this is a good working document, but the "source" of each data series should be stripped from it for the proposes of the Forum's upcoming report because a lot of discussion remains to be had here. This is a good starting point, but the OEB still has to hold a lot of detailed discussions about the specific reporting requirements.
- A member pondered if there should be a metric for "consumer acceptance". On this point another member said that this would be a good ida, but that "acceptance" is more of a qualitative assessment. To this however, we need to start with a benchmark survey immediately with a set of core questions which are repeated surveyed over a longer period of time. Over time, this would become a powerful measure of success. It is a costly approach, but has proven its value in many other industries.

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- There was some debate as to whether or not these success metrics were a government concern or a private sector concern, but no consensus on this point appeared to be reached.
- A member commented that “evidence of load shifting” may be a long-term goal, but it needs to be base-lined immediately, or any future measurements may not have a proper point of reference.
- At this point the Chair attempted to summarize the conversation thus far with the following outcomes:
  1. Remove references to data sources from the metrics list
  2. Formulate a recommendation including an undertaking by the Forum to assist other organizations to formalize these metrics and reporting requirements
  3. Baseline the required data series immediately
  4. Recommend an annual survey of base-lined data series.
- A member questioned how urgent this issue really is. On this point another member countered that the benchmarking of key data needs to start right away. This guidance will be helpful to the OEB. Another member suggested that developing the benchmarks is the most important work the Forum could possibly do at this point.
- A member questioned whether or not there should be a privacy metric of some sort, though a specific data series was not suggested.
- Another member suggested that the metrics should measure the pace of introduction of the smart grid by geographic area.

{10:15 a.m.}

### **Agenda Item # 3: 2010 Annual Report – update and next steps**

(see also, distribution items: i. Revised recommendation tracking document; and, ii. revised report outline)

The discussion began with a review of selected recommendations from the revised recommendation tracking document (dated February 4<sup>th</sup>, 2011). What follows are various comments received for those recommendations that were reviewed during the meeting(**see recommendations tracking list for details regarding each recommendation**).

#### **Previous recommendations of the Forum from its 2009 – (series ‘A’ to ‘H’)**

##### **Recommendation A1:**

- This recommendation was accepted by the Forum as written with no further comments.

##### **Recommendation B1:**

- Partially addressed but not necessarily “at risk”
- Retailer offerings in a TOU context is now an OEB matter to decide
- Corporate Partners Committee sees this is a barrier – not moving forward fast enough.

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- Still not clear if LDCs play a role in granting/revoking/verifying access to third party service providers that are not licenced retailers.

### Recommendation B2:

- Need to address various legal barriers still remain.
- Some Forum members took issue with characterizing this as “at risk” and suggested using complete sentences in the status column.

### Recommendation D3a:

- It was noted that the OEB has revised to the Distribution System Code on cost responsibility for renewable distribution generation and connection process.

### Recommendation D3b:

- Current efforts in this area are not adequate from an LDC standpoint.
- Nothing in the current {OPA FIT and microFIT} contracts allows LDCs to perform maintenance at convenient times

### Recommendation D3c:

- Some work being done on this, but the issue remains at risk.

### Recommendation D3e:

- This recommendation was accepted by the Forum as written with no further comments.

### Recommendation G1:

- Electric Vehicles (EVs) on their way to Ontario soon, but activity within the province is still not adequate enough to attract them
- The target timeframe is to aid the EV market of 3 years from now.
- Concerns that EVs and related equipment still need to be adapted to Ontario’s climate.
- Let’s leverage TOU rates to encourage cars here.
- Major strategic choices need to be made to get this issue back on track. Is there an opportunity to attract “foreign” manufacturers?
- Need to more directly engage government to see if there is an appetite to listen to industry.

### Recommendation H1:

- There is a huge appetite to do more {smart grid Research & Development} within the academic community.
- The Smart Grid Fund focuses on “what’s now” but more needs to be done on, “what’s next.”
- The matching principle works, but the OEB restricts R&D funding from the utility sector. The OEB is OK with truly unique demonstration projects, but doesn’t offer much guidance on R&D
- OPA and other agencies don’t conduct research, but they at least have the opportunity to drive it.
- R&D and commercialization are two completely different concepts. LDC’s better at commercialization, while universities are better suited for R&D

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- There needs to be a smart grid R&D focal point. The OCE restructuring is in fact a step away from this model however, towards a focus on overall economic return.
- Ontario needs to be one of the many international centres around the world.

### **New potential recommendations arising from deliberations within the Forum, the Working Group and the Corporate Partners Committee over the course of 2010/early 2011 – (series ‘N’);**

**{NOTE: The discussion of the ‘N’ series recommendations took place between 12:30 and 1:00 after the lunch break}**

#### **Recommendation N1:**

- Check to see where this need actually exists before putting forward as a recommendation.

#### **Recommendation N2:**

- Revised wording as follows: “A broader framework to encourage the realization of the benefits of storage by parties beyond just distributors is required. **The framework also needs to account for the complexity of integrating such assets into the smart grid. In addition this framework should allow for the use of relevant research and models to ensure the appropriate location of such assets alongside renewable generation in order to better offset the variability of their output.**”
- Means of compensation for asset owners are not clear.
- Distributors are already permitted to own storage

#### **Recommendation N3:**

- There are a variety of models offering different types of opportunities.

#### **Recommendation N4:**

- Various information privacy laws might be a potential barrier to implementing this recommendation in its current form.
- Good idea, but is the Ministry of Transport the right organization to provide this information? What about electric contractors? Or the vehicle owner? Or the property owner?

#### **Recommendation N5:**

- Accepted by Forum

#### **Recommendation N6:**

- Accepted by Forum

#### **Recommendation N7:**

- STAND DOWN recommendation for this year

#### **Recommendation N8:**

- Accepted by Forum

#### **Recommendation N9:**

- Accepted by Forum

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### Recommendation N10:

- Accepted by Forum – Suggest listing specific steps from the Roadmap in the Forum’s Report.

### Recommendation N11:

- STAND DOWN recommendation for this year

### Recommendation N12:

- STAND DOWN recommendation for this year

### Recommendation N13:

- Change “commission” to “advocate” so the recommendation reads as follows: *“The Ontario Smart Grid Forum should identify gaps in knowledge specific to the development of the smart grid in the province Ontario, and where applicable, advocate studies to fill in those gaps.”*

### Discussion of the Report Outline:

Tyler Hamilton (CBE Research and report writer engaged by the Forum) then provided an overview to the outline for the Forum’s upcoming report which was circulated to all Forum members prior to the meeting. After providing insights into his rationale for the outline, various Forum members provided comments on the overall outline, and various sections of the report as follows:

#### Comments Regarding the overall report outline:

- **Goal:** The report should be high-level but meaningful
- A Forum member suggested the title of the report should characterize it as a “status update” report as opposed to an “annual report”. {Note: the Forum’s *Terms of Reference* puts an annual reporting requirement on the Forum}
- Should be a shorter report than last year
- There should be out-take boxes that provide specific examples of smart grid activities

#### Comments about the Executive Summary and other sections:

- Should include a lead-in with statistics and facts about Ontario and its smart grid efforts
- Point to other jurisdictions and the need to keep moving forward.
- Should we draw together various consensus issues into major report sections? On this point most Forum members felt this was a good idea.
- Should be a consumer-themed report {note: on this point, others expressed a concern that this shouldn’t be to the exclusion of commercial and industrial customers}
- The Corporate Partners Committee should definitely factor into the report.
- Include the Smart Homes Roadmap in the report. On this point another Forum member suggested that the entire roadmap may be too detailed for the report.

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### **Agenda Item 5b: SmartGrid Canada**

(See also, **SmartGrid Canada** website: <http://sgcanada.org/> and; SGF support presentation)

Edward Arlitt (IESO staff) began by providing an overview presentation of SmartGrid Canada based upon information available from their public website. In addition, it was noted that SmartGrid Canada presents at least two possible options for further involvement as follows:

- 1) **Option 1:** That the smart Grid Forum joins SmartGrid Canada as a single entity. Under this arrangement, the Forum would need to choose between becoming a full-fledged voting member or a non-voting Associate Member.
- 2) **Option 2:** The Forum encourages its member organization to become members of SmartGrid Canada directly.

There was considerable discussion of the comparative merits and drawbacks of these two approaches. Some of the comments received by Forum members were as follows:

- Ontario has the most to offer at a national level (i.e. compared to most of the other provinces) – but would we actually gain any benefit from our involvement? On this point another member suggested that the Ontario Smart Grid Forum is already doing everything that SmartGrid Canada is doing, and much more. Indeed the Ontario Smart Grid Forum’s already has a much more fulsome cross-section of public utilities, government, regulators and private sector players than SmartGrid Canada appears to have.
- A member noted that the current membership of SmartGrid Canada appears to have a western Canada bias and that perhaps there is a need for Ontario involvement in some capacity in order to bring better balance to this national organization.
- With respect to Option 1, a member noted that it doesn’t make sense for all of the Ontario Smart Grid Forum members to only have one vote. If the Ontario Smart Grid Forum is to join SmartGrid Canada then we need to negotiate a heavier weighting of our voting power.

**ACTION ITEM:** Forum members were asked to consider two questions regarding the Forum’s prospective involvement in SmartGrid Canada: i) do Forum members see value in this? and, ii) would our potential involvement dilute the Forum’s work here in Ontario?

### **Agenda Item 5c: Great Lakes Sustainable Energy Consortium**

(See also, SGF support presentation)

Edward Arlitt (IESO staff) began by providing an overview presentation of the Great Lakes Sustainable Energy Consortium based upon some preliminary background information provided from its members. Edward also noted that some of its members attended the recent Canada/U.S. Clean Energy Dialogue Conference (“Smart Grids in the North American Context: A Policy Leadership Conference”) in Waterloo and were very pleased with the conference and highly interested in the Forum’s work.

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At this time, the Great Lakes Sustainable Energy Consortium is not seeking the Forum to become a member of its organization. It has however, indicated a strong interest in providing a more detailed presentation to the Forum in the near future about its present work – with a view to discussing potential linkages between the Forum’s work and their own. Of particular interest to them, are potential linkages on bilateral smart grid Research and Development policy considerations between Ontario and New York state.

After a brief discussion, it was agreed to extend such an invitation to the Great Lakes Sustainable Energy Consortium later on this spring, following the publication of the Forum’s report.

### **Next Meeting:**

Tuesday, March 8<sup>th</sup>, 2011

**13:00 – Adjournment.**

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## APPENDIX 'A'

### S.G.F. **OPEN** Action Items as of February 8<sup>th</sup>, 2011

Action Item	Date Assigned	Assigned To	Target Completion	Status
Forum members were asked to consider two questions regarding the Forum's prospective involvement in SmartGrid Canada: i) do Forum members see value in this? and, ii) would our potential involvement dilute the Forum's work here in Ontario?	Feb. 8, 2011	All	March 8 <sup>th</sup> 2011	OPEN
Ministry of Energy Staff took the action time to check internally if there were any concerns about the content of past minutes concerning deliberations over the high-level smart grid principles.	Jan. 17, 2011	Ministry staff	Feb. 8 <sup>th</sup>	OPEN
Jim Huntingdon to engage the EDA on the possibility of reviewing the revised capital cost estimates once developed by the Working Group.	Sept. 7, 2010	Jim Huntingdon	Oct. 12, 2010	OPEN
Report back to the Forum as to when other materials pertaining to advice to government since Fall, 2009 might be suitable for publication.	May 17 <sup>th</sup> 2010	Jon Norman	TBD	OPEN (update provided on June 8 <sup>th</sup> )
Examine the <i>IESO Market Rules</i> 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.	Feb. 9, 2010	IESO Staff	TBD	OPEN

#### CLOSED Action Items:

As of October 12<sup>th</sup>, 2010 closed action items are no longer listed in the minutes as per the agreement reached at the September 7, 2010 Forum meeting. The removal of an open action item constitutes the completion of that item.