

# SGF Agenda Items 1 to 4

Ontario Smart Grid Forum  
Tuesday, June 8, 2010



- Final minutes of the April 19<sup>th</sup> Forum meeting:
  - No further comments received
  - Recommended as final
- Draft minutes of the May 17<sup>th</sup> Forum meeting
  - Circulated for comment

- **Recall:** OEA Corporate Partners Committee proposal discussed at May 17<sup>th</sup> Forum Meeting
- Potential action items for the Partners Committee was discussed at the June 1<sup>st</sup> Working Group Meeting (see, “report back from working group” presentation)
- **Today:**
  - Further update
  - Review revisions to proposed membership list
  - Nominations for additional organizations receives

## Discussion: Smart Grid Rate Impact

- Recall: 2009 SGF Report (*“Enabling Tomorrow’s Electricity System”*):
  - *“Preliminary cost projections prepared by Forum members and extrapolated to cover Ontario’s entire grid sector (distribution, transmission and the IESO) estimate that incremental annual capital spending on a smart grid would average about \$320 million over the initial five years.\*”*
- Questions for consideration:
  - What benefits can be associated with these costs?
  - Do these estimates need to be revisited, and if so, when?
  - Has the *Green Energy Act* changed the above considerations?
  - Do these costs warrant special treatment or do current rate structures suffice?

\* “Comparisons between this estimate and the smart grid spending estimates for other jurisdictions are not meaningful because of the different spending categories included in various figures and the different starting point for each jurisdiction. For example, the above cost estimate does not include the cost of renewable energy resources or any smart meter costs. “

## Feedback from the June 1<sup>st</sup> Working Group Meeting:

- **Comment:** estimates from the original SGF report should be updated to reflect the impact of the *Green Energy Act*
- **Comment:** if an assessment of costs only looks at the distribution sector in isolation from everything else, it is inevitable that the smart grid will be portrayed as a major contributor to overall cost increase. These increases must therefore be matched with the broader set of benefits that the smart grid yields.
- **Comment:** An assessment of broader societal benefits may lead to a more rigorous discussion of the value of Greenhouse Gas emission reductions.
- **Comment:** Consumers are major drivers of the needs and requirements for smart grids – not just legislation and regulatory requirements.
- **Comment:** The Smart Grid yields more than just energy efficiency benefits. FIT and microFIT projects for example, yield positive rates of return for those who invest in them, but would not be possible without smart grid investments by the utility company.
- **Comment:** Smart Grid equipment manufacturers are driving a need for a smart grid as part of the natural cycle of equipment replacement and the embedding of communications/control capabilities in such equipment.
- **Comment:** Capital budget information available from some Working Group members to develop cost estimation models – but the SGF should be called upon to assist in a wider sample set of smart grid costs in order to ensure the quality of data (perhaps the EDA can assist?)
- **Comment:** Time horizon for revised estimates should be about 5 years and include both direct smart grid costs and indirect societal benefits.

## Agenda Item # 4:

# Report Back From the Working Group



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# Agenda Item # 4: Report Back From the Working Group

## **Report:**

On Tuesday, June 1<sup>st</sup>, the Working Group met to discuss the following topics:

- 1) Costs and benefits of the Smart Grid (see agenda item # 5)
- 2) Action items for the Corporate Partners Committee
- 3) Structured problem analysis of the topics, “Demand Response” and, “Behind the Meter.”



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# Potential Action Items for the Corporate Partners Committee

## General suggestions from the Working Group:

- A concern was raised that the Committee might become a platform for sales activities and that appropriate precautions will be need to be taken – both in terms of membership, and ground rules.
- The Committee should also be careful with respect to representation of “electric vehicle” suppliers and related technologies, given the radically different concepts currently under development.
- Additional, potential nominations were also discussed.



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# Potential Action Items for the Corporate Partners Committee – cont'd.

- The Working Group suggested a number of specific questions about reaching out to the consumer, including:
  - Insights into how the consumer behaves with respect to various types of behind-the-meter technologies
  - What do consumers want? and, how can they be motivated?
  - What are the best mechanism to reach out to the consumer in the first place.
- During the later problem definition exercise a number of specific demand-response related topics were also identified (see also, demand response “problem tree”)

- The working group then turned its attention to structured problem analysis of two (rather messy) smart grid topics:
  - Demand Response; and
  - “Behind the Meter”

## Why structured problem analysis?

1. To concisely frame the problem boundary and determine its nature.
2. To identify relevant interrelationships between various smart grid topics/problems.
3. To determine if there is indeed a “problem” that the Smart Grid Forum, the Working Group or the Corporate Partners Committee should become engaged with.

Constructing a “Problem Tree” is one of several widely available techniques to refine the definition of a “**trunk**” (core) problem and identify its **root** causes and its side effects (**branches**).

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**Branch problems:**

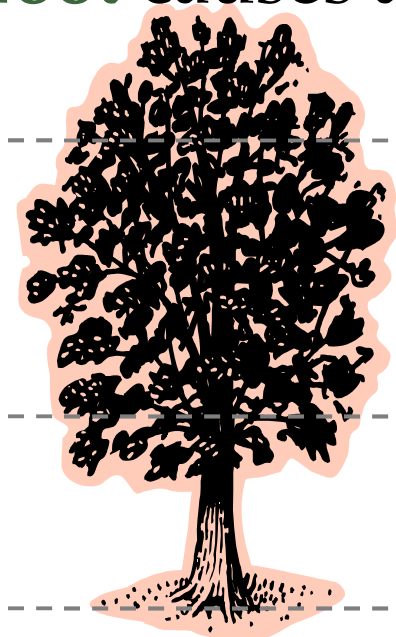
- Often a symptom or side-effect of the underlying trunk/core problem.

**Trunk problems:**

- The core problem or central objective requiring resolution.

**Root problems:**

- Underlying problems and issues that create the environment which allows the trunk problem to exist in the first place.



## Objectives for the June 1<sup>st</sup> Working Group

### Session:

1. Develop Trunk problem statements for **demand response** and **“behind-the-meter”**
2. Brainstorm root and branch problems
3. Identify key linkages between the two problem trees.
4. Identify branch and root problems that are of specific interest to the SGF, SGF Working Group and Corporate Partners Committee

## **Demand Response Trunk Problem Statement** developed by the Working Group:



*“Capture the benefits of the smart grid by facilitating demand response.”*

## **Behind-the-Meter** Trunk Problem Statement developed by the Working Group:

*“Identify roles between customers, regulators, regulated utilities, and non-regulated entities so as to capture the benefits of the smart grid by facilitating customer participation.”*

- Further analysis of the Working Group with respect to Demand Response will be discussed as part of the next Agenda item (theme discussion: Demand Response)



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Thank you.