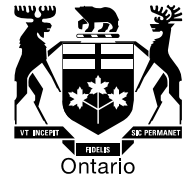


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## **BY E-MAIL AND WEB POSTING**

January 13, 2011

To: All Licensed Electricity Distributors,  
All Licensed Transmitters,  
All Licensed Generators, and  
All Other Interested Parties

**RE: Developing Guidance for the Implementation of Smart Grid in Ontario –  
Board File No. EB-2011-0004**

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One of the Board's new objects, as consequence of the passage of the *Green Energy and Green Economy Act, 2009* (GEA), is to facilitate the implementation of the smart grid in Ontario. While a broad definition of the smart grid is provided in the GEA, the Minister has now issued, on November 23, 2010 a detailed Directive to the Board on this matter.

The Directive requires the Board to provide guidance to licensed electricity transmitters and distributors and other regulated entities that propose to undertake smart grid activities. The Directive also requires that the Board, in providing this guidance, must have regard to three objectives of a smart grid and a related set of policy objectives. These objectives are set out in the Directive, attached as Appendix A to this letter.

There are a number of technical issues which need to be addressed in order for the Board to provide the guidance required by the Directive. The Board intends to seek the assistance of stakeholders in its consideration of these technical issues.

### **The Board's Approach**

Therefore the Board intends to establish a *Smart Grid Working Group (SGWG)*. The SGWG will provide advice to Board staff on the technical aspects and related details to be addressed in the guidance to be provided by the Board in respect of the implementation of smart grid. The advice from the SGWG will assist with the preparation of a Board staff discussion paper. That paper will form the basis for broader consultation regarding the development of the Board's smart grid guidance and the appropriate regulatory requirements.

The Board is seeking expressions of interest from those who would like to participate in the proposed SGWG. Based on these expressions of interest the Board will select a representative group of no more than twenty people. The Board expects to hold the inaugural meeting of the SGWG during the second week in February. It is expected that the SGWG will meet on a bi-weekly basis for approximately 4 months. The SGWG will be led by Board staff and a staff issues paper will be provided prior to the first meeting as a guide to the discussions. All meeting materials and notes prepared by Board staff will be posted on the Board's website to allow stakeholders to follow the Working Group's progress.

Those interested in nominating themselves or a third party to participate in the SGWG identified above should submit a letter addressed to the Board Secretary at the Board's mailing address set out above by **January 24, 2011**. That letter must quote file number **EB-2011-0004**, and include the following:

- The name of the nominee and the interest or constituency represented; and,
- A short statement identifying the nominee's relevant experience and qualifications.

Following the issuance of the Board staff discussion paper, all stakeholders would be provided with the opportunity to comment. The results of that consultation would provide the basis for the Board issuing the guidance and the appropriate regulatory documents.

### **Cost Awards**

Cost awards will be available to eligible persons under section 30 of the *Ontario Energy Board Act, 1998* for their participation on the SGWG and/or in relation to the broad consultative process, as applicable. The costs awarded will be recovered from all licensed electricity distributors and transmitters based on their respective distribution and transmission revenues.

**Appendix B contains information regarding cost awards for this consultation, including in relation to eligibility requests and objections.** In order to facilitate a timely decision on cost eligibility, the deadlines for filing cost eligibility requests and objections will be strictly enforced.

Three (3) paper copies of each filing must be provided, and should be sent to:

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street  
Suite 2700  
Toronto, Ontario  
M4P 1E4

Please submit electronic copies of your filings in searchable/unrestricted Adobe Acrobat (PDF) format through the Board's web portal at [www.errr.oeb.gov.on.ca](http://www.errr.oeb.gov.on.ca). You will need a user ID for this. If you do not have a user ID, visit the "e-filings services" webpage on the Board's website at [www.oeb.gov.on.ca](http://www.oeb.gov.on.ca), and fill out a user ID password request. Please use the document naming conventions and document submission standards outlined in the document entitled "RESS Document Preparation – A Quick Guide" also found on the e-filing services webpage. If the Board's web portal is not available, electronic copies of filings may be filed by e-mail at [boardsec@oeb.gov.on.ca](mailto:boardsec@oeb.gov.on.ca).

If you do not have internet access, please provide a CD or diskette containing your filing in PDF format. Filings to the Board must be received by the Board Secretary by **4:45 p.m.** on the January 24, 2011. They must quote file number **EB-2011-0004** and include your name, address, telephone number and, where available, your e-mail address and fax number.

All written comments and filings relating to cost awards received by the Board in relation to this consultation will be available for viewing at the Board's offices and will be placed on the Board's website.

If the written comment or request for cost award eligibility is from a private citizen (i.e., not a lawyer representing a client, not a consultant representing a client or organization, not an individual in an organization that represents the interests of consumers or other groups, and not an individual from a regulated entity), before making the written comment or request available for viewing at the Board's offices or placing the written comment or request on the Board's website, the Board will remove any personal (i.e., not business) contact information from the written comment (i.e., the address, fax number, phone number, and e-mail address of the individual). However, the name of the individual and the content of the written comment or cost award eligibility request will be available for viewing at the Board's offices and will be placed on the Board's website.

Any questions regarding this consultation process should be directed to Russ Houldin at Russ.Houldin@oeb.gov.on.ca or at 416-440-8112. The Board's toll-free number is 1-888-632-6273.

Yours truly,

*Original Signed By*

Kirsten Walli  
Board Secretary

Attachments:  
Appendix A - Minister's Directive  
Appendix B – Cost Awards

## Appendix A

### MINISTER'S DIRECTIVE

#### TO: THE ONTARIO ENERGY BOARD

I, Brad Duguid, Minister of Energy, hereby direct the Ontario Energy Board pursuant to section 28.5 of the *Ontario Energy Board Act, 1998* (the "Act"), as described below.

The Board shall take the following steps in relation to the establishment, implementation and promotion of a smart grid:

1. The Board shall provide guidance to licensed electricity distributors and transmitters, and other regulated entities whose fees and expenditures are reviewed by the Board, that propose to undertake smart grid activities, regarding the Board's expectations in relation to such activities in support of the establishment and implementation of a smart grid.
2. For licensed distributors and transmitters, the guidance referred to in paragraph 1 shall be provided in particular to: (a) guide these regulated entities in the preparation of plans for the development and implementation of the smart grid, as contemplated in subparagraph 70(2.1)2(ii) of the Act ("Smart Grid Plans"); and (b) identify the criteria that the Board will use to evaluate Smart Grid Plans.
3. In developing the guidance referred to in paragraph 1, and in evaluating the Smart Grid Plans and activities undertaken by the regulated entities referred to in that paragraph, the Board shall be guided by, and adopt where appropriate, the parameters for the three objectives of a smart grid referred to in subsection 2(1.3) of the definition for "smart grid" as provided for under the *Electricity Act, 1998*, where such elements of said objectives are set out in Appendices A through C.
4. Further, in developing the guidance referred to in paragraph 1 and in evaluating the smart grid activities of the regulated entities referred to in that paragraph, the Board shall be guided by the following policy objectives of the government:
  - i) *Efficiency*: Improve efficiency of grid operation, taking into account the cost-effectiveness of the electricity system.
  - ii) *Customer value*: The smart grid should provide benefits to electricity customers.
  - iii) *Co-ordination*: The smart grid implementation efforts should be coordinated by, among other means, establishing regionally coordinated Smart Grid Plans ("Regional Smart Grid Plans"), including coordinating smart grid activities amongst appropriate groupings of distributors, requiring distributors to share information and results of pilot projects, and engaging in common procurements to achieve economies of scale and scope.
  - iv) *Interoperability*: Adopt recognized industry standards that support the exchange of meaningful and actionable information between and among smart grid systems and enable common protocols for operation. Where no standards exist, support the development of new recognized standards through coordinated means.

- v) *Security*: Cyber security and physical security should be provided to protect data, access points, and the overall electricity grid from unauthorized access and malicious attacks.
- vi) *Privacy*: Respect and protect the privacy of customers. Integrate privacy requirements into smart grid planning and design from an early stage, including the completion of privacy impact assessments.
- vii) *Safety*: Maintain, and in no way compromise, health and safety protections and improve electrical safety wherever practical.
- viii) *Economic Development*: Encourage economic growth and job creation within the province of Ontario. Actively encourage the development and adoption of smart grid products, services, and innovative solutions from Ontario-based sources.
- ix) *Environmental Benefits*: Promote the integration of clean technologies, conservation, and more efficient use of existing technologies.
- x) *Reliability*: Maintain reliability of the electricity grid and improve it wherever practical, including reducing the impact, frequency and duration of outages. The Board may consider such other factors as are relevant in the circumstances.

The Board may consider such other factors as are relevant in the circumstances.

5. In furtherance of the government's policy objective as described in item (iii) of paragraph 4 above, the Board shall undertake a consultation process with licensed electricity distributors and other relevant stakeholders for the purpose of developing a regional or otherwise coordinated approach to the planning and implementation of smart grid activities by licensed electricity distributors that promotes coordination amongst them having regard to, among other things, cost-effective outcomes.
6. Nothing in paragraph 5 shall be construed as limiting the ability of licensed electricity distributors to engage in smart grid activities or the authority or discretion of the Board in exercising its responsibilities in relation to the smart grid activities of licensed electricity distributors pending the development of the regional or coordinated approach referred to in that paragraph.

## **APPENDIX “A”**

### **CUSTOMER CONTROL OBJECTIVES**

For the purpose of providing the customer with increased information and tools to promote conservation of electricity, which will “expand opportunities to provide demand response, price information and load control to electricity customers”, in accordance with subsection 2(1.3)(b) of the Electricity Act, the following objectives apply:

- **ACCESS:** Enable access to data by customer authorized parties who can provide customer value and enhance a customer’s ability to manage consumption and home energy systems.
- **VISIBILITY:** Improve visibility of information, to and by customers, which can benefit the customer and the electricity system, such as electricity consumption, generation characteristics, and commodity price.
- **CONTROL:** Enable consumers to better control their consumption of electricity in order to facilitate active, simple, and consumer-friendly participation in conservation and load management.
- **PARTICIPATION IN RENEWABLE GENERATION:** Provide consumers with opportunities to provide services back to the electricity grid such as small-scale renewable generation and storage.
- **CUSTOMER CHOICE:** Enable improved channels through which customers can interact with electricity service providers, and enable more customer choice.
- **EDUCATION:** Actively educate consumers about opportunities for their involvement in generation and conservation associated with a smarter grid, and present customers with easily understood material that explains how to increase their participation in the smart grid and the benefits thereof.

**APPENDIX “B”**  
**POWER SYSTEM FLEXIBILITY OBJECTIVES**

For the purpose of “enabling the increased use of renewable energy sources and technology, including generation facilities connected to the distribution system,” in accordance with subsection 2(1.3) (a) of the Electricity Act, and recognizing the need for flexibility on the integrated power system, the following objectives apply:

- **DISTRIBUTED RENEWABLE GENERATION:** Enable a flexible distribution system infrastructure that promotes increased levels of distributed renewable generation.
- **VISIBILITY:** Improve network visibility of grid conditions for grid operations where a demonstrated need exists or will exist, including the siting and operating of distributed renewable generation.
- **CONTROL AND AUTOMATION:** Enable improved control and automation on the electricity grid where needed to promote distributed renewable generation. To the extent practical, move toward distribution automation such as a self-healing and self-correcting grid infrastructure to automatically anticipate and respond to system disturbances for faster restoration.
- **QUALITY:** Maintain the quality of power delivered by the grid, and improve it wherever practical.



**APPENDIX “C”**  
**ADAPTIVE INFRASTRUCTURE OBJECTIVES**

For the purpose of “accommodating the use of emerging, innovative and energy saving technologies and system control applications,” in accordance with subsection 2(1.3)(c) of the Electricity Act, the following objectives apply:

- **FLEXIBILITY:** Provide flexibility within smart grid implementation to support future innovative applications, such as electric vehicles and energy storage.
- **FORWARD COMPATIBILITY:** Protect against technology lock-in to minimize stranded assets and investments and incorporate principles of modularity, scalability and extensibility into smart grid planning.
- **ENCOURAGE INNOVATION:** Nest within smart grid infrastructure planning and development the ability to adapt to and actively encourage innovation in technologies, energy services and investment / business models.
- **MAINTAIN PULSE ON INNOVATION:** Encourage information sharing, relating to innovation and the smart grid, and ensure Ontario is aware of best practices and innovations in Canada and around the world.

## Appendix B

### Cost Awards Participation on the Smart Grid Working Group And in the Smart Grid Consultative Process

#### Cost Award Eligibility

The Board will determine eligibility for costs in accordance with its *Practice Direction on Cost Awards*. Any person intending to request an award of costs must file with the Board a written submission to that effect by **January 24, 2011**, identifying the grounds on which the person believes that it is eligible for an award of costs (addressing the Board's cost eligibility criteria as set out in section 3 of the Board's *Practice Direction on Cost Awards*). An explanation of any other funding to which the person has access must also be provided, as should the name and credentials of any lawyer, analyst or consultant that the person intends to retain, if known. All requests for cost eligibility will be posted on the Board's website.

If a Board licensee has any objections to any of the requests for cost eligibility, such objections must be filed with the Board by **February 4, 2011**. Any objections will be posted on the Board's website. The Board will then make a final determination on the cost eligibility of the requesting participants.

#### Eligible Activities

Cost awards will be available in relation to participation on the Smart Grid Working Group or in the consultative process on the smart grid. Cost awards will cover preparation, attendance and reporting time in relation to each Working Group meeting or consultative meetings. The maximum allowable hours per participant has not yet been determined.

#### Cost Awards

When determining the amount of the cost awards, the Board will apply the principles set out in section 5 of its *Practice Direction on Cost Awards*. The maximum hourly rates set out in the Board's Cost Awards Tariff will also be applied. The Board expects that groups representing the same interests or class of persons will make every effort to communicate and co-ordinate their participation in this process.

The Board will use the process set out in section 12 of its *Practice Direction on Cost Awards* to implement the payment of the cost awards. Therefore, the Board will act as a clearing house for all payments of cost awards in this process. For more information on this process, please see the Board's *Practice Direction on Cost Awards* and the October 27, 2005 letter regarding the rationale for the Board acting as a clearing house for the cost award payments. These documents can be found on the Board's website at [www.oeb.gov.on.ca](http://www.oeb.gov.on.ca) on the "Rules, Guidelines and Forms" webpage.