Renewed Regulatory Framework for Electricity

Ontario Power Authority (OPA)

Questions for Board Staff Information Session on December 8/9, 2011

December 2, 2011

EB-2011-0043: Board Staff Discussion Paper

Regulatory Framework for Regional Planning for Electricity Infrastructure

Question 1

Reference: Page 3

> *As indicated in the April 2011 Letter, this consultation is intended to focus on the development of regional planning requirements that will apply in circumstances where a localized geographic issue can be resolved through a number of different transmission and/or distribution solutions. It is not intended to be a broad integrated planning exercise that addresses solutions such as conservation and distributed generation as potential alternatives to infrastructure.*

Question: How is the Board considering opportunities for conservation or distributed generation, which may be least cost options, to address localized geographic issues in this process?

Question 2

Reference: Page 5

> *Board staff's understanding is that the OPA's joint regional planning studies will identify options that distributors and transmitters may wish to pursue, and will be subject to consultation amongst a broader group of stakeholders before being finalized. Board staff also understands that the studies are relatively high level in nature, as the OPA does not engage in matters related to distribution system planning.*

Reference: Page 28

> *Staff proposes that a requirement be introduced that entails joint planning between distributors and transmitters in relation to distributor connections to the transmission system. Specifically, all licensed distributors and transmitters would be required to engage in joint planning exercises, share information regarding distributor connection issues, and identify optimal connection solutions among alternatives involving transmission and distribution investments.*

Reference: Page 30

> *Alternatively, the joint infrastructure planning exercise could occur in conjunction with an OPA integrated regional planning activity to facilitate the process. However, in Board staff's view, completion of a regional plan under the OPA's integrated regional planning activities would not necessarily be a prerequisite. For example, staff expects there will be regional plans focusing on infrastructure needs in areas of the province where the OPA does not intend to initiate an integrated regional planning process. In addition, the*

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appropriate mix of generation, conservation and infrastructure could be determined through other processes (e.g., IPSP).

Question: The OPA's ongoing integrated regional planning process incorporates transmission and distribution solutions, as well as generation and conservation options. The OPA actively addresses all of the province's load pockets of concern. Can the Board clarify how the OPA's regional planning process integrates with the regional planning process discussed in this paper?

<u>Question 3</u>

Reference: Page 22 and 23

> *Staff also notes that the Board has already defined certain transmission lines as Dual Function Lines. As such, this approach to reclassification would not represent a new concept in Ontario. However, staff is uncertain regarding how difficult it would be for the transmitter to determine with precision the extent to which such lines function as Network assets rather than as Connection assets. This would itself likely change from year to year for a variety of reasons including changes in system conditions. Staff is therefore uncertain of the degree of administrative burden this approach would impose on the transmitter*

Question: How frequently does Board staff envision that the allocations would be updated?

<u>Question 4</u>

Reference: Page 28

> *All distributors within a region would provide the transmitter with information related to their forecast transmission connection capacity needs at the same time. This would take into account both projections of load and the amount of generation expected to be connected to each distributor's system.*

Preamble: The OPA's ongoing integrated regional planning process develops net load forecasts by coordinating and combining inputs including: load forecasts from LDCs, conservation impacts from all sources, and the impacts of distribution- and transmission-connected generation.

Question: How does the Board intend to consider all of these inputs in the process proposed in this paper?

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Question 5

Reference: Page 28

> *The information provided by the distributors to the transmitter would be in relation to both the near term (covering one year) and longer term (covering a minimum of five years), with the near term forecast more detailed in nature.*

Question a): Does the Board propose to have any standardization with respect to forecast methodology, in particular around accounting for distributed generation and conservation?

Question b): Would the Board expect to see various load growth scenarios in these regional plans, and if so, would the Board specify what types of scenarios should be provided?

Question 6

Reference: Page 28

> *The information provided by the distributors to the transmitter would be in relation to both the near term (covering one year) and longer term (covering a minimum of five years), with the near term forecast more detailed in nature.*

Reference: Page 29

> *Staff further notes the proposed five year forecasts would represent a minimum time horizon (i.e., could be for a longer period of time) and they would supplement any 25 year forecasts that a distributor must provide to a transmitter for the purposes of conducting an economic evaluation in relation to new or modified Connection assets.*

Question a): Do LDCs regularly provide these 25-year forecasts or only when new facilities are built?

Question b): How difficult are these forecasts to produce?

Question c): Does the Board see an inconsistency between only providing a five year forecast for planning purposes, but providing a 25-year forecast for conducting the economic evaluation for a new or modified Connection asset?

Question 7

Reference: Page 29

> *Regional plans would be required to take into account the relevant land use planning documents for the applicable five year period. Those documents would typically include municipal "Official Plans" as well as supporting documents that identify expected future development (e.g., new subdivisions) and indicate the pace/probability at which that future development is likely to occur. It would be the*

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expectation that each distributor in the region would obtain such land use planning documents from the appropriate authority (typically the municipality) in its service area for the purpose of providing the pertinent information to the transmitter.

Question a): Does the Board expect that regions and municipalities will include electricity infrastructure, and the associated setting aside of ROWs/properties for stations, in their regional plans and municipal "Official Plans"? If so, how does the Board propose to ensure this occurs?

Preamble: The Planning Act and the Provincial Policy Statement promote the optimal utilization of land through multi-use transportation and utility corridors, where economic. Coordinating plans of this nature typically requires at least a 20 year outlook to achieve the required incorporation within the associated Regional and Municipal plans.

Question b): How does the OEB foresee achieving this coordination when conducting Regional studies with a five year outlook?

Question 8

Reference: Page 30

Board staff proposes that the basis upon which optimal transmission and distribution solution(s) would be determined would entail the combination of transmission and distribution solution(s) with the highest Net Present Value (NPV). This would result in the solution(s) that meet(s) the need(s) of the distributors within a region at the lowest overall system cost over the long term.

Reference: Page 31

A potential scenario that may arise under the process outlined above is that it may be determined by the Board that a regional plan filed by one utility, but involving a number of distributors as well as the transmitter, needs to be revised. For example, revision may be necessary if the plan was not completed in accordance with the Filing Requirements or it is determined that the option(s) selected in the regional plan is/are not the optimal solution(s) (i.e., lowest overall system cost in the long term).

Question a): Does the Board expect that there could be situations where the lowest overall system cost option is not the preferred alternative, and a higher cost option could be selected with justification?

Question b): Does the Board consider an NPV calculation that is based only on transmission and distribution options, and does not include generation and conservation options, to represent "lowest overall system cost"?

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Question c): Does the OEB foresee using other decision criteria in the selection of the preferred plan, for example, Technical Factors (reliability / power quality, etc.), Environmental Factors, or Societal Acceptance Factors, and if so would these be specified within the TSC and DSC?

Question 9

Reference: Page 31

> *An option that may assist in reducing the likelihood of such an outcome is if the entities involved in the development of the plan were to consult more broadly before a regional plan is finalized. The focus would be on the regional plan and would occur in advance of the filing of any rate application or leave to construct application to which the plan is relevant. This would provide an opportunity for other parties to raise any major concerns they may have and to explore the merits of the plan. Consistent with the scope of these regional plans any such consultation would not delve into alternatives to the infrastructure investments identified in the plan (e.g., CDM, distributed generation).*

Question a): Would the Board develop criteria for determining when this stakeholdering is required? For example, would it be only for regional plans that require expenditures in the near term? If not, what would be the criteria?

Question b): Who would parties need to consult with? Would it be a broader set of stakeholders than the regular intervenors that participate in rate and Leave to Construct applications?

Question c): Would the Board expect to develop a set of minimum consultation requirements?

Question 10

Reference: Page 46

> *4.3.2.3 Full Pooling option*
>
> *This option was suggested by certain distributors at the stakeholder meeting. It would fully eliminate capital contributions by distributors for all new or modified Line Connections, including where a distributor is the sole beneficiary of a Line Connection. As a result, all Line Connection costs would be shifted to the Network pool and be recovered from all Ontario ratepayers through transmission rates.*

Question: To confirm, would the full pooling option just be for distributors? (i.e. cost allocation for industrial customers would remain unchanged)

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Question 11

Reference: Page 48

> *Given this approach would result in cost recovery from all provincial ratepayers (i.e., non-beneficiaries) of all Line Connection investments included in plans and it would also result in a greater reliance on regulatory proceedings as the main avenue for cost discipline in relation to those investments, this approach may necessitate formal Board approval of all regional plans.*

Question a): What is the process that the Board envisions for filing and approving regional plans?

Question b): Is the Board not planning to approve all regional plans? Or does the Board expect to only look at regional plans when they trigger an expenditure to be recovered through a rate application or Leave to Construct application?

Question 12

Reference: Page 48

> *4.3.2.4 Pooling sub-option: Basic service option*
>
> *The "Basic Service option" was originally proposed by Hydro One as a possible option in the early stages of the TCCRR consultation.*
>
> *In this option, a basic level of connection service would be available to all distributors on a pooled basis. The basic level of service would be determined based on criteria such as maximum distance to the grid and single circuit supply. This approach is similar to the current approach in the DSC, where the costs of a basic connection are (residential customers) or can be (non-residential customers) recovered through rates, whereas "above basic" connection costs are recovered by means of a variable charge levied on the connecting customer.*
>
> *This approach would take into account the possibility that some distributors may desire a higher standard and more costly connection (e.g., underground connection), while other distributors may opt for a less costly solution. As such, distributors desiring to have a higher standard of connection (or "Premium Service") would be required to provide a capital contribution to cover any costs that exceed the cost of the basic level of service.*

Question a): Would this option take into account any variances between LDCs and their location with respect to the transmission system?

Question b): Would a standard Basic Service level be adopted for the whole province, or does the Board expect that there would be regional differences in the expected level of service?

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Question c): In cases where the Basic Service level is not (technically or politically) feasible, would the LDC be responsible for the cost of building to a premium service level?

Question 13

Reference: Page 49

> *Under the hybrid option, a distributor would only be required to provide a capital contribution for the radial lines that connect its system to the transmission system, whether that is a connection to a 230 kV Network line or another 115 kV Connection line. A distributor would also be required to provide a capital contribution for a Connection line that is not necessarily a radial line but where it is evident that the distributor is the sole user of the line. The costs associated with upgrades to the remaining 115 kV Connection lines that provide Network functions would be recovered through transmission rates on a pooled basis via the Line Connection pool. The fact that the costs are recovered through the Line Connection pool rather than the Network pool or both pools distinguishes this approach from the options related to the reclassification of assets described in section 4.2.2. Otherwise, the connection cost responsibility impact or effect of the two proposals is the same.*

Question: Would this option take into account any variances between LDCs and their location with respect to the transmission system? In some cases, the Connection line is the major cost.

Question 14

Does the Board expect that transmitters will look at all regions across the province on a consistent basis? How frequently does the Board expect this to be done?

Question 15

Does the OEB expect that end of life facilities could be an input into regional plans?

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EB-2011-0004: Board Staff Discussion Paper

In regard to the Establishment, Implementation and Promotion of a Smart Grid in Ontario

Question 1

How does the OEB see a provincial perspective being incorporated into the filing of individual smart grid plans?

Question 2

Who will determine the avoided costs and other cost effectiveness measures to be used when assessing smart grid investments?

Question 3

Reference: Page 39

> *If a distributor's losses exceed 5%, it is required to provide an explanation and action plan as to how it intends to reduce its losses. Smart grid investments may reduce losses below this level but the reductions may take some time to appear.*

Question: With smart grid technology, it is possible that distribution losses could be more easily identified and thus addressed. Is the Board considering reducing from 5% the amount of distribution losses that utilities could incur before they are required to develop an action plan to reduce their losses?

Question 4

Reference: Page 43

> *The inclusion of environmental benefits as a policy objective in the Directive may lead the Board to consider environmental benefits associated with CDM for the purpose of fulfilling its role in the facilitation of smart grid. One way to accomplish this could be to revise the TRC methodology and the Lost Revenue Adjustment Mechanism (LRAM) which, in turn, may involve the monetization of environmental benefits.*

Question a): What criteria/inputs has the Board considered in adjusting TRC or LRAM to account for environmental benefits delivered as a result of smart grid activities?

Question b): What does the Board view as being the benefits to be considered? (i.e. GHG? NOx SOx? Land use? Water use?)

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Question 4

Reference: Page 45

> *There are two broad approaches to estimating the benefits of BTM services: (a) by projecting the value of sales of BTM services, which is the orthodox economic benefit-cost approach; and (b) the benefits could be estimated as for CDM, CHP, EVs etc. (i.e. using estimates of various avoided costs and environmental benefits.*

Question: Is the Board planning to choose between these two approaches, or will it use these two methods for different purposes? (e.g., criteria A could be used in determining the appropriate demarcation point for regulated/unregulated services, and , depending on the result of criteria A, criteria B could then be applied to investments proposed by regulated entities?)

Question 6

Reference: Page 50

> *Under Measurement Canada (MC) rules upgrades to meters require the meter to be removed, recalibrated and replaced. This constraint, along with the existence of multiple types of Advanced Metering Infrastructure (AMI) in Ontario, creates potential additional costs for BTM service vendors since gateways and/or devices have to be designed to accommodate multiple sets of communications protocols. This raises the inter-related issues of the Board's roles in relation to interoperability standards and the appropriate demarcation point for the scope of the Board's regulation of BTM services.*

Reference: Page 52

> *There is a current perceived need to provide for a greater degree of interoperability between existing meters and a variety of BTM products. This need has to be balanced against the costs that may be incurred in order to facilitate the development of the BTM market. For example, if the Board were to require a specific communications protocol for BTM (such as Zigbee) or even a broader standards-based functionality this would require the replacement or modification of over four million meters.*

Question a): If the Board determined that it should set standards related to interoperability of meters with BTM services, how would the Board weigh the cost of replacing or modifying existing smart meters with the benefits that BTM services might offer?

Question b): If the Board determined that the cost of modifying or replacing meters would be too great at this time, would it review this question again in the future when the costs and level of technological maturity may have changed?

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