Load Displacement Generation Working Group - Meeting 3
EB-2013-0004
June 25, 2013

These notes are intended to be indicative of discussion points and progress at the meeting, rather than an exhaustive summary of comments made by the working group members. They are provided to allow others to follow the progress of the working group.

Upon convening at 9:30am

1. Introductions

Board staff welcomed working group participants and asked if anyone had any issues that they would like to discuss. APPrO noted that it would like to make some presentations on certain relevant topics.

2. Attendance

The following people attended the meeting:

- Shelly Grice, Association of Major Power Consumers in Ontario ("AMPCO")
- Paul Liikkonen, Canadian Solar Industries Associations ("CANSIA")
- Jake Brooks & Jason Chee-Aloy, Association of Power Producers of Ontario ("APPrO")
- Joyce Poon, Ontario Power Authority ("OPA")
- Mike Risavy, Ontario Association of Physical Plant Administrators ("OAPPA")
- Bill Harper, Vulnerable Energy Consumer Coalition ("VECC")
- Jan Buijk, European Power Systems Limited ("EPS")
- Ryan Diotte, Entegrus Powerlines Inc. ("Entegrus")
- Marion Fraser, Building Owners and Managers Association of Greater Toronto ("BOMA")
- Daryl Seal, Coalition of Large Distributors ("CLD")
- Henry Andre, Hydro One Networks Inc. ("HONI")[1]
- Mike Roger, Elenchus
- Lawrie Gluck and Takis Plagiannakos, Board Staff

3. Elenchus Presentation – Examples of LDG Customers under the Proposed Definition

Previously, Elenchus had recommended that the definition for Load Displacement Generation should be:

Generation installed behind the customer's meter that is used to partially or fully replace the customer's electricity needs and is connected to the distribution system. Excess generated electricity may be exported to the grid.

An action item arising from the last meeting was for Elenchus to provide some examples of LDG customers that would fall under the above definition.

Elenchus developed a number of examples of LDG customers that would fall under the proposed definition and could be applied standby rates. Elenchus also discussed the issue of net metering customers and the importance of setting an adequate threshold (in order to not charge net metering customers standby rates).

[1] Henry Andre did not attend the meeting but made comments on the minutes.

No comments were made.

4. Sub-Working Group Discussion

Elenchus discussed the work completed by the sub-working group regarding how incremental costs imposed on the LDC by customers with LDG can be accounted for using the OEB's cost allocation model.

Elenchus discussed the issue of setting an appropriate coincident factor in the CAM for standby rates customers.

Elenchus provided its main conclusion that there are costs to the LDC of having to be ready to supply the load generated by the customer when using the CAM principles to determine the costs.

EPS discussed potentially looking at the diversity factor on a province-wide basis which could impact the coincident factor used in the CAM. VECC noted that looking at the provincial level of LDG diversity would not necessarily impact the coincident factor as the distribution-level assets are at issue when setting the coincident factor in the CAM.

EPS also noted that the energy infrastructure in Ontario is a fully integrated system, with transmission systems, distribution systems, generators and load customers. When LDG's are connected to this system, initially a case could be made that keeping capacity available is a cost that should be covered by LDG's. However, over time, as more and more LDG's are connected, the cost of keeping capacity available will disappear and cost savings resulting from avoided investments in transmission and distribution systems will offset the initial investment in transmission and distribution capacity pre-LDG's. EPS stated that the logical outcome is that, when viewed over an extended period of time, LDGs may initially add some cost, but over time will become cost neutral. Rather than burdening the system with the cost of trying to estimate the short-term impact of LDGs and then trying to burden LDG's with this cost, LDGs should be considered to be cost neutral and treated as such.

5. APPrO Presentation – Proposed Principles for LDG Standby Charges in Ontario

APPrO provided a summary of the views from its concerned members regarding how standby rates should be designed for LDG customers across the province.

APPrO noted that that the LDG situation across LDCs is likely to be diverse. Therefore, a standard rate design will not work well as a single rate design will not be efficient or effective in all circumstances. As such, APPrO suggested that a principle based approach is more useful. APPrO suggested that a consistent application of the techniques for calculating costs and applying benefits should be used. This means that the resulting standby rates could be different for each LDC (and possibly for each LDG customer) often resulting in site-specific charges, at least for larger LDG customers.

APPrO noted that the standby rates applied to LDG customers should reflect the costs attributable to that customer net of any benefits accruing to the distributor.

APPrO stated that the averaging of costs is problematic for LDG customers due to the different profiles / site locations of these customers. VECC questioned why the averaging of costs is a problem for LDG customers (and the standby rate class) when this averaging occurs in every other rate class. APPrO replied that there are less LDG customers to average the costs across, and often very little homogeneity, therefore it results in a larger inequity for the customers with LDG.

APPrO stated that standby rates should not be subject to material changes in cost to the LDG (other than, for example, CPI adjustments) during the term of financing a project, usually 15-20 years. VECC

questioned why standby rates should only be increased for inflation as that may not reflect the actual costs of serving the customers with LDG over time.

Some parties asked APPrO for clarification regarding what is meant by not using a standardized rate design. APPrO replied that that there is no “one size fits all” answer for the design of standby rates. Therefore, distributors should be given the opportunity to figure out how to best design and apply standby charges.

APPrO noted that the result of its proposal is that one distributor may have different charges set for each customer with LDG (because of the different profiles of these customers) while another distributor may have a standardized average standby charge (because their LDG customers are more homogeneous).

VECC noted that the main problem with APPrO’s proposal is that determining the actual incremental costs of serving LDG customers is very complex. It becomes increasingly complex to design rates on a one-by-one basis for each LDG customer. VECC noted that average costs are paid by all other classes of customers and that the same treatment should generally be applied to LDG customers.

6. APPrO Presentation – Benefits of LDG and DG

APPrO provided its views on the benefits of LDG. APPrO listed the direct and indirect benefits of LDG.

APPrO argued that there are clearly some direct benefits of LDG and these direct benefits can be quantified. APPrO noted that when benefits arise (at a minimum – the distribution-level benefits) they should be calculated and credited to the LDG customer.

APPrO also raised some concerns around integrated system planning and how it does not take into account LDG and DG.

7. Elenchus Presentation – Benefits of LDG

Elenchus discussed the potential benefits of LDG and provided its recommendations on how to address these benefits.

Distributors’ Avoided Capital Costs

Elenchus recommended that the Distributor should be responsible for determining if the presence of a customer with new LDG results in the avoidance or deferment of building additional distribution capacity. If the distributor is able to determine that an avoidance of costs occurs, that it is significant, and that it can be quantified, then the customer with LDG should receive a credit to reflect the avoided capital costs.

APPrO agreed with this recommendation but stated that the Board must require distributors to do this assessment (i.e. it should not be optional). APPrO suggested that this assessment should take place as part of the capital planning process. Some parties suggested that as part of the 5-year capital plan (which is filed with every CoS application), distributors should be required to include an assessment of the benefits of LDG. If the assessment determines that there are material and quantifiable avoided capital costs, the Board should approve a credit, which reflects these avoided costs, that would be paid to the LDG customer (and funded by the distributor’s other customers).

The CLD requested clarification that this benefit would only be applicable to new LDG projects (i.e. no retroactive applicability of the credits paid for the benefits of LDG). Elenchus agreed that any credit would only be applicable for new LDG customers. Elenchus noted that only new projects can give rise to

avoided capacity costs. EPS noted that this effectively penalizes early implementers of LDG and does not recognize the long-term benefits of LDG.

HONI noted that both positive and negative impacts should be considered when calculating the benefits (avoided costs) of LDG. If the LDG customer results in additional costs being incurred by the distributor (in the form of additional capacity costs, additional line losses, additional pass-through charges) those costs should be paid by the customer with LDG.

No other parties made any comments.

Distributors' Line Losses

Elenchus noted that there is no benefit in the form of reduced distribution line losses. The customer with new LDG will directly benefit by avoiding having to pay for distribution losses for the amount of self-generation it uses.

Distribution line losses are calculated by the LDC (and approved by the Board) and are applied when charging for the commodity ($/kWh) and transmission ("RTSRs") ($/kW). OAPPA noted that for LDG facilities under 1MW, transmission connection charges are billed on net basis and therefore the LDG customer receives the benefit of avoiding having to pay for the distribution losses. However, for distributor connected LDG facilities over 1MW, transmission connection charges are billed on a gross basis and therefore the LDG customer does not actually avoid having to pay for the distribution losses. All customers pay on a net basis for transmission network charges, therefore the distribution line losses applied to the network charges are avoided by all LDG customers.

APPrO reserved judgement on this question pending resolution of whether LDG customers are charged for transmission service on a net or gross basis.

No other parties made any comments.

Distributors' Pass-Through Charges

Elenchus recommended that the Distributor will have to determine if the presence of the customer with new LDG results in lower pass-through transmission charges. If the lower charges can be quantified and are significant from the customer's perspective, then a mechanism should be established to return the difference recorded in the variance account to the customer with new LDG.

There was general acknowledgment that if the presence of the customer with new LDG results in higher pass-through transmission charges then a mechanism should be established to recover the difference recorded in the variance account from the customer with new LDG.

HONI noted that in the EB-2009-0349 proceeding, which looked at "direct benefits" associated with distributed generation ("DG") facilities, the benefits associated with reduced transmission charges and wholesale market service charges were examined. HONI suggested that the Board consider any parallels between that proceeding and the current consultation.

No other parties made any comments.

Transmission Avoided Capacity Costs

Elenchus recommended that the Transmission Companies should be responsible for determining if the presence of a customer with new LDG results in the avoidance or deferment of building additional transmission capacity. If the transmitter is able to determine that an avoidance of costs occurs, that it is significant, and that it can be quantified, then the customer with LDG should receive a credit to reflect the avoided capital costs. The credit would be a pass-through credit from the distributor to the LDG customer provided by the Transmission Company.

VECC noted that a credit for avoided transmission capacity costs should not be provided if that benefit has already been reflected in a contract between the OPA and the LDG customer.

APPrO agreed with this recommendation but stated that the Board must require transmitters to do this assessment (i.e. it should not be optional). APPrO suggested that this assessment should take place as part of the transmission planning exercise.

No other parties made any comments.

Avoided Transmission Losses

Elenchus noted that there is no benefit in the form of reduced Transmission Losses. The customer with new LDG will directly benefit by avoiding having to pay for transmission losses for the amount of self-generation it uses. Elenchus noted that transmission losses are included as part of the wholesale market service charges (which is a $/kWh charge). LDG customers avoid paying the transmission losses on electricity that is self-generated as wholesale market service charges are billed on a net basis.

OAPPA noted that LDG customers over 1MW are billed on a gross basis for transmission connection charges. As such, customers with LDG pay transmission connection charges for output from their own generation facilities.

Some parties seem to have agreed that it is difficult to calculate the transmission losses and the losses are likely not material. Therefore, these parties seem to have agreed that there is no need to calculate a credit related to avoided transmission line losses at this time.

APPrO reserved judgement on this question pending resolution of whether LDG customers are charged for transmission service on a net or gross basis.

Ancillary Services

Elenchus recommended that the potential benefits from new LDG customers resulting from providing Ancillary Services (Black Start, Regulation Service, Reactive Support and Voltage Control Service) to the Power System will have to be determined by the IESO. Elenchus noted that the IESO is responsible for determining the appropriate Ancillary Services required by the Power System and is therefore in the best position to be able to determine if Ancillary Services are provided by customers with new LDG. Elenchus stated that to the extent that the IESO is able to determine that Ancillary Services are provided as a result of the new generation, the associated changes are significant, and can be quantified (measured), then the customer with new LDG should receive the value of the Ancillary Service provided from the IESO.

APPrO stated that the IESO may not have the statutory power to address distribution connected assets. Therefore, they may not be able to provide the value of the ancillary services to the LDG customers even if it is determined that there is some value to the system of those services.

HONI noted that the customers of a particular distributor should not be accountable for paying for any benefit that attributes to the electricity system as a whole and customers of other distributors.

No other parties made any comments.

Avoided Generation Capacity

Elenchus recommended that any potential benefit in the form of avoided or deferred electricity generation capacity requirements from new LDG customers will have to be determined by the OPA (that is if the presence of the customer with new LDG results in the OPA having to contract for less generation capacity requirements). Elenchus stated that the OPA is responsible for determining and contracting for the electricity capacity requirements needed in Ontario to satisfy electricity demand and therefore is in the best position to determine if generation capacity requirements are impacted by the presence of customers with new LDG. Elenchus noted that to the extent that the OPA is able to determine that Generation capacity requirements are avoided or are reduced as a result of the new generation provided by a customer, the associated changes are significant, can be quantified (measured), and have not already been reflected in a contract between the OPA and the generator then the customer with new LDG should receive a credit reflecting the avoided generation capacity requirement and the credit would be provided by the OPA to the customer with new LDG.

APPrO stated that the OPA may not have the statutory power to deal with distribution connected assets. As such, the OPA may not be able to credit the LDG customer for the avoided generation capacity costs.

HONI noted that the customers of a particular distributor should not be accountable for paying for any benefit that attributes to the electricity system as a whole and customers of other distributors.

No other parties made any comments.

8. Elenchus Presentation – Jurisdictional Review Update

Elenchus provided an update on the jurisdictional review. Elenchus noted that most of the jurisdictions surveyed do not have standby rates.

Elenchus noted that they have found standby rates in the tariff sheets of two utilities. However, these utilities are vertically-integrated. The Working Group asked Elenchus to look into these utilities further to try and determine how they calculate / apply credits for the benefits of LDG.

9. Action Items and Next Meeting

Board staff noted that Elenchus will prepare the first draft of its report on standby rates for LDG prior to the next meeting of the working group. Elenchus will circulate the draft report via email to all members of the working group at the end of July, 2013. Working group members will be given two weeks to review and provide comments on the draft. Elenchus will incorporate the comments received where possible. A final working group meeting will be established to discuss the remaining issues where there are still questions / concerns.

The next working group meeting will likely take place in September, 2013. After that meeting, Elenchus will put together a final version of its report. The final report will be posted on the Board's website for a final round of comment. Working group members and other interested parties will be given an opportunity to provide final written comments on the report.

Board staff will then put together its report to the Board. If there are outstanding issues to be addressed the staff report to the Board could be circulated for comment.

Meeting Adjourned at 3:30pm.