UNDERTAKING JT1.28

Undertaking

TO ASK SCOTT MADDEN TO RESPOND TO THE QUESTIONS IN THE DOCUMENT TITLED TECHNICAL CONFERENCE QUESTIONS FOR SCOTT MADDEN.

Ref: OEB Staff - Technical Conference Questions for ScottMadden

In response to part (d) of Staff-205, ScottMadden identified Pickering NGS and Darlington NGS site capacities in relation to the site capacities of other stations in the EUCG dataset.

a) Please advise whether 1,737 MWe is the median site capacity from the EUCG dataset. If 1,737 MWe is not the median site capacity, please provide the median EUCG site capacity.

b) Please confirm that the site capacity of Pickering NGS and Darlington NGS are 3,094 MWe and 3,512 MWe, respectively. If these values are not the Pickering NGS and Darlington NGS site capacities, please provide the site capacities of Pickering NGS and Darlington NGS.

In response to part (c) of Staff-205, ScottMadden stated that adjusting for site capacity would follow the logic of other adjustments to cost. In this model, that would mean adjusting costs by ~C$261k per MW per year for each site by a multiple of the median capacity in MW across all sites minus the capacity of the specific site in MW.

c) At Exhibit F2 / Tab 1 / Schedule 1 / Attachment 5, p. 9, the methodology used to apply the adjustment for unit age is provided. In a similar manner, please describe how an adjustment for site capacity would be applied (e.g. if the site capacity is the above the median size, ScottMadden would apply a positive (or negative) adjustment of $261k per MW per year).

In response to part (c) of Staff-205, ScottMadden stated that a site capacity adjustment was not included in the calculation for TGC/MWh due to complications arising from the need to adjust the MWhs produced by a site. ScottMadden further stated that the adjustment would require determination of the capacity factor.

d) OEB staff recognizes ScottMadden's view that it would be inappropriate to adjust costs for site capacity in the absence of also adjusting MWhs. However, OEB staff requests that ScottMadden provide a directional indicator of the impact on OPG's benchmark results applying an approach whereby the costs are adjusted for site capacity with no corresponding adjustment to MWhs.

e) Please further discuss why an adjustment to the MWhs would be needed to implement the site capacity normalization. Why would using the MWhs non-normalized based on a three-year rolling average not provide a reasonable proxy for the operating conditions of the plant over time?

Response

The following responses have been provided by ScottMadden:

a) Confirmed. The median site capacity from the EUCG dataset is 1,737 MWe.

b) Confirmed. The site capacities of Pickering NGS and Darlington NGS in the dataset are 3,094 MWe and 3,512 MWe, respectively.

c) Adjusting for site capacity would follow the logic of other adjustments to cost. In this model, that would mean adjusting costs by ~C$261k in 2017 dollars per MW per year for each site by a multiple of (median capacity in MW across all sites minus the capacity of the specific site in MW). For example, in 2017 for a nuclear site with 2000 MWe of capacity, this would involve making an adjustment to TGC of (C$261k multiplied by (1,737 MWe minus 2,000 MWe)) or negative C$68,643k. However, such a cost adjustment for site capacity would also require that we adjust the MWhs produced by the site in kind.

d) Since the capacities of Pickering NGS (at 3,094 MWe) and Darlington NGS (at 3,512 MWe) are both greater than the median capacity of the benchmarking panel (1,737 MWe), a cost adjustment for site capacity would involve a reduction in TGC in both cases. Without a corresponding adjustment to MWhs, this would result in a favorable reduction in TGC per MWh for the two OPG plants.

e) While the generating capacity of a site has a significant and calculable relationship to the TGC of a site, it is also directly related to the number of MWhs that a site can produce. In calculating TGC / MWh, particularly for the purposes of comparison, it would be difficult to interpret the resulting TGC / MWh if only TGC were adjusted based on site capacity without a corresponding adjustment to MWhs.