Mr. Yatchew's Answers to Staff's Clarifying Questions sent on June 21, 2013.

1. As noted in the Board's May 30, 2013 letter to stakeholders providing an update on the timeline for expert reports and written comments, the Board asked that expert models and datasets supporting be filed with the Board. Please provide these materials to the Board.

   The code used to calculate our results will be provided (in S-Plus). <u>We ask that the code not be posted on the OEB web-site, but instead e-mailed to participants/stakeholders, with the understanding that they will not post.</u> The updated version of the EDA document will contain the algorithms underlying the code in an appendix.

2. Please clarify the dollar amounts in Figure 4. Do the residential electricity prices refer to prices for bundled electricity services or electricity distribution services?

   The dollar amounts in Figure 4 are for bundled electricity services. The International Energy Agency data do not separate out distribution services. Additional details are contained in fn. 5 to the paper as filed on June 13, 2013.

3. It is unclear in your report how stretch factor assignments would be made using the efficiency rankings established by your recommended approach (e.g., PEG recommends 5 cohorts). Will the EDA expand upon this in its final comments?

   Additional commentary on stretch factor assignments will be provided.

4. On page iv, you indicate that your preliminary index-based TFP estimates lead to an average productivity factor of -0.7%. Furthermore on page 4 of Appendix B you indicate that you carried out a "robustness check" of your cost model. In each analysis:

   a. Was the cost measure used in the analysis: the cost measure that was used in PEG's econometric benchmarking model; the cost measure that PEG used when estimating the industry's TFP growth rate using indexing methods; or a different cost measure?

   For our index-based TFP analysis we use the same cost measure used by PEG in their TFP analysis, normalized for any residual effects of the LV-VH and CIAC expenditures. Details will be provided in the submissions on June 27th.

   For our cost model and benchmarking analysis, (reported in Tables 1 and 2) we also use the cost data used by PEG in their TFP analysis.

In our robustness checks, we redo cost model estimation, benchmarking analysis and TFP analysis using the cost measure implemented by PEG in their econometric benchmarking model.

The preliminary results arising out of each stream (i.e., using the TFP cost measure and the benchmarking cost measure) are very similar:

i) **Coefficient estimates change marginally**

ii) **There is little change in relative efficiencies of distributors**

iii) **The index-based estimate of TFP growth are very similar (in both cases rounding to -0.7).**

b. Are any of the costs in the cost measure used not included in base rates (i.e., not subject to the PCI adjustment)?

Our cost measure is the same as that used by PEG in their TFP analysis, which to our understanding does not include CIAC or LV charges but does include HV charges.

5. You recommend negative stretch factors be a feature of the Board's incentive regulation mechanism. Are you aware of other jurisdictions that have approved negative stretch factors? Will the EDA expand upon this in its final comments?

   Additional commentary on stretch factor assignments will be provided.

6. PEG did not include the following expenses in their data set: bad debts; federal and Ontario capital and income taxes (PILs); interest; and unclassified debits and credits. Have you included any of these expenses in your analyses?

   As indicated above, we are using the data provided by PEG. We have not modified these data to incorporate the above stated expenses.