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VIA MAIL AND EMAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
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2300 Yonge Street
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Dear Ms. Walli:

Re: VECC's Comments Re: Consultant's Report on Benchmarking the Costs of Ontario Power Distributors (EB-2006-0268)

As Counsel to the Vulnerable Energy Consumer's Coalition (VECC), I am writing, per the Board letter of April 27th, 2007, to provide VECC's comments on the Pacific Economics Group's Report. The comments consist of both general observations regarding the Report as well as specific comments on the analysis presented in the report itself, followed by some overall conclusions. In many cases the comments are actually questions. This suggests that, at a minimum, the next steps need to include more interactive processes where stakeholders can directly ask questions of both the consultant and Board Staff so as to better understand the analysis and its planned applications.

General Observations

- In the introduction, PEG states that "this is the preliminary report on our work" (page 2). However, there does not appear to be any indication, elsewhere in

the Report or in the accompanying letter from the OEB, as to what follow-up work PEG will be performing.

- The general discussion in Section 2.4.2 on index-based approaches to benchmarking notes the importance of establishing the appropriate peer groups (page 16). Also, in Section 6.3, PEG states that cost drivers should be considered in the design of the peer groups when benchmarking is undertaken using unit cost or productivity indexes. However, PEG's indexing analysis (presented in Section 6.7) does not explain how the peer groups used were established other than to note that they are "similar to those proposed by Board Staff" (page 57). In VECC's view, this is an area that requires more analysis/explanation starting from first principles, i.e., what are the business conditions that are not reflected in the indexes and what groupings best place utilities with similar business conditions in the same peer group?
- The discussion on precedents notes that the greater use of benchmarking in Europe is due, in part, to the fact that "regulators in many countries have jurisdiction over numerous distributors" (page 25). PEG also notes (page 39) that a large and diverse set of data is highly desirable for statistical benchmarking. Given the government's objective of encouraging further "consolidation" of Ontario's electricity distributors, it would be useful if PEG were to provide an opinion as to how many distributors are required in order for a benchmarking exercise to provide reasonable results and whether the number of distributors impacts at all on the benchmarking approaches that can be used. This could assist the Board in determining the type of benchmarking that is practical over the longer term.
- Section 4, which discusses the application of benchmarking to power distribution, makes brief references (pages 30 and 34) to the reliability of distribution and the quality of customer services. Have studies elsewhere ever attempted to factor reliability performance and/or customer service metrics into the benchmarking exercise? For example, reliability and customer service measures could also be considered as "distribution outputs"

(page 29) along with delivery volume and number of customers. In VECC 's view, this is an area that warrants further consideration and investigation.

- On page 37, PEG notes the fact that some of the key data provided by utilities in their PBR reports is deemed to be confidential. VECC agrees with PEG's recommendation (page iv) that there needs to be wider public reporting and availability of utility data. Apart from the need to address statutory requirements regarding the release of personal data, VECC does not see any reason why historical cost data for publicly regulated utilities should be considered confidential. Indeed, if benchmarking approaches such as those developed by PEG are to be adopted by the OEB then it is imperative that the underlying data used in the analysis be publicly available. In VECC's view, benchmarking results that are produced by a "black box" and can not be independently verified or tested will not be readily accepted by either utilities or consumers.
- On page 40, PEG concludes that "it is best for now to confine benchmarking to total OM&A expenses". However, it appears from the preceding discussion (pages 39-40) that this does not "get around" all of the data inconsistencies and that some of the problems identified will impact efforts to benchmark total OM&A. It would be useful if these data shortcomings were identified and PEG addressed the question of their impact on the results presented in Section 6.
- Section 2 of the Report discusses how, if one is just benchmarking OM&A costs (see pages 5 and 8), it is important to recognize the potential tradeoffs between capital and OM&A expense. The discussion of cost drivers in Section 6 (page 49) suggests that this relationship is captured by including, as a measure of capital employed, the ratio of gross plant value to a construction cost index. However, no details are provided regarding how this "measure" is calculated and, furthermore, neither of the final two models presented (Tables 2 and 3) include this variable. Given the importance of capital in a utility's overall cost structure and the fact that the focus of the benchmarking exercise is just OM&A expenses, more explanation should be provided as to the

development of this measure and its inclusion/exclusion in the model formulation.

- PEG expresses a number of concerns with the current methods and models (see page 68) and concludes that “benchmarking should be limited to the identification of companies that – thanks to favourable scores – merit expedited processing of rate applications and those that – due to poor scores – should be scheduled for especially thorough prudence reviews” (page vi). However, despite the current data inconsistencies and the data improvements suggested by PEG (see pages 40-42), the models presented by PEG appear to do a reasonable job (statistically) of explaining OM&A costs (i.e., there’s a fairly high R^2 value). This begs the question as to how the Board and stakeholders are to determine when/if the models (and data) have been improved sufficiently to “play a larger role in the regulation of Ontario power distributors”.

Specific Comments

- On page 6, the Report discusses the measurement of capital usage and important characteristics of capital stock. VECC has significant reservations regarding the validity of using “number of customers added in the last ten years” as an indicator of the age of capital stock (see also page 42). Investment in distribution facilities (other than meters and connections) tends to occur in steps and does not increase smoothly with number of customers. Also, the number of new customers will not capture any major system replacements or retrofits due to end of life issues. The ratio of accumulated depreciation to gross plant may be a better indication of system age.
- On page 10, the term “SFA” is not defined. Presumably, it refers to Stochastic Frontier Analysis. However, it would be useful if this was confirmed.
- It is not clear why PEG adopted a 90% confidence level for purposes of testing the results of its analyses (pages 12 and 52) and identifying superior/inferior performers (page 54). As noted below, it would be useful if

PEG provided information on the confidence levels employed by other regulators. Also, it would be useful if PEG had explained the implications of using a 90% confidence level (e.g. the chance of making a Type I error).

- Section 2.5 discusses the unique problems associated with capital costs and discusses a means of computing capital costs (page 23). However, it is unlikely that the method discussed could be applied in the Ontario circumstance. Not only does the method require significant historical data (which may or may not be available to the OEB), the mergers and acquisitions that have occurred since 1999 would seriously complicate the computation of past values. Given this, it would be useful if PEG discussed/presented other methods that could be used to measure both capital input quantities and costs.
- It is not readily apparent from the discussion of the DEA approach why it requires less data than econometric benchmarking methods (see pages 19-22 and 25). There is also no discussion in Section 6 as to why PEG chose an econometric approach as opposed to a DEA approach to benchmarking. Given that benchmarking seems to be more advanced in Europe and the European preference for DEA, it would be useful if PEG were to address why an econometric approach is preferable for Ontario.
- The discussion of precedents for benchmarking in regulation (Section 3) is at a very high level. Given PEG's stated experience in this area it would have been useful if the discussion regarding practice elsewhere had dealt with issues such as:
 - The types of cost functions (per page 6) used elsewhere and which ones were preferred.
 - Whether the cost models developed and employed by regulators elsewhere tended to be "total cost functions" or "restricted cost functions" (pages 4-5).
 - The estimation procedures used elsewhere and which ones were preferred (pages 8 and 10).

- Whether other jurisdictions tend to use multiple or single equation cost models (pages 8-9).
- How cost functions employed in other jurisdictions address the measurement of capital usage and reflect the age of the capital stock in the model formulation.
- The confidence levels employed by other jurisdictions when assessing efficiency hypotheses (page 12).
- The overall “state of the art” of econometric benchmarking, particularly in view of its limited use outside of North America (where benchmarking seems to play a more significant role in regulation overall).
- With respect to data issues (Section 5.2.2), an issue that came up during the Cost Allocation project was the inconsistency across utilities in terms of how purchased services (e.g., outsourcing costs) were reported (i.e., were they reported under the appropriate distribution function or reported under A&G as an Outside Service Employed). This inconsistency will also serve to confound the benchmarking of individual OM&A cost components.
- It is not clear to VECC why it is important (or necessary) to not reveal a utility’s labour cost per customer (page 41).
- There is no discussion in Section 6.1 as to how PEG handled those utilities that were subject to a merger or acquisition during the four year period.
- With respect to Table 1 (page 44), those utilities for which the necessary business condition data were not available do not appear to be identified – as suggested on page 43.
- PEG indicates (page 45) that the reason for excluding pensions and other benefits is that they reflect commitments to former employees. However, under the OEB’s Uniform System of Accounts, Employee Pensions and Benefits (#5645) also appears to include expenses related to current employees. Consideration should be given to testing a model that includes these costs.

- In Section 6.3.2, there are references to both a Table and Appendices where more information is to be found. However, neither the Table nor the Appendices appear to include any supporting details. In Section 6.3.2 there is also discussion regarding the “weights” used to construct the input price index and the fact they are based on PEG’s US experience. However, the weights used by PEG for labour versus materials and services are materially different than those employed by the OEB in calculating the IPI adjustment for its first generation PBR. PEG values for labour versus materials & services are 0.35 and 0.65 respectively. However, for the IPI adjustment the OEB used relative values of 0.7 and 0.3 respectively. It would be informative to know if use of the OEB values materially changed the benchmarking results.
- Despite the earlier discussion regarding the impact of asset age on OM&A costs (see page 31), asset age has not been identified in Section 6.3.3 as one of the relevant business conditions considered. As noted earlier, in VECC’s view there are simple metrics that can be used to provide a measure of asset age and which should be tested in future model formulations.
- The econometric models presented in Tables 2 and 3 do not include all of the cost drivers discussed in Sections 6.3.2 and 6.3.3. The Appendix indicates that the models presented included only those variables whose coefficients were found to be statistically significant. However, the model set out in Table 3 includes a number of variables that are not statistically significant. It would be useful if further explanation was provided regarding the results of including all of the business conditions in the modeling exercise.
- Other than reporting the adjusted R^2 , Section 6.5 does not indicate what tests PEG undertook to confirm the validity of the econometric results and the resulting models. VECC notes that a high R^2 may indicate a spurious correlation among variables, e.g., due to a common trend among some of the variables or due to an omitted variable that causally explains the independent or dependent variables. In this regard, it would be useful to know the details of any misspecification tests or diagnostics that PEG performed. For example, did PEG conduct any tests for omitted variables, RESET tests, tests

for non-spherical errors, or F-tests of hypotheses? Did PEG attempt to detrend variables?

- On pages 53-54 PEG notes that it also developed a multiple equation translog cost model. However, the results are not presented in the Report. It would be informative to know if, using the multiple equation model (which included additional cost drivers), the same utilities were identified as superior and/or inferior cost performers. For example, what would be the Spearman rank correlation coefficients for the multiple equation translog cost model when paired with the indexes or the models presented in the Report? It would also be useful if PEG were to explain further why use of the multiple equation models is not warranted at this time. VECC does not see “a greater prevalence of extreme performance appraisals” as necessarily being a disadvantage.
- It is not at all clear how PEG comes to the conclusion (page 65) that the “Staff’s peer groups go a considerable way towards controlling for differences between utilities in input prices, forestation, operating scale and undergrounding”. As a result, it is also not clear what the rationale is for the peer group reassignments recommended on page 66.

Overall Conclusions

- In principle, VECC considers benchmarking to be a valuable tool for rate making purposes. However, given the current state of art regarding benchmarking, VECC concurs with PEG that its use should be limited to that of a screening tool. Furthermore, since the current approaches (both the index approach used by Board Staff/PEG and the cost models developed by PEG) don’t control for all business conditions and don’t include capital, in VECC’s view its role, as a screening tool, should be to identify those utilities warranting a more through cost of service review as opposed to a tool to identify those that should be eligible for an expedited regulatory process. The reason for this is that there may be utilities that the “tool” identifies as being superior cost performers simply because certain business conditions (e.g., age assets or capital/labour substitution) were not factored into the current

model. Indeed, use of OM&A based benchmarks for screening should be supplemented by other screening tools that identify utilities with higher than average capital additions and/or overall capital costs.

- In theory, the econometric benchmarking approach suggested by PEG better captures the impact of underlying cost drivers than an index approach such as that employed by the OEB Staff. However, as can be seen from the preceding comments/questions, there is a need to better understand PEG's econometric benchmarking approach before it is applied. Also, despite the apparent sophistication of PEG's approach there are serious limitations on the existing models' capabilities to capture all relevant business conditions. It is important that stakeholders not equate complexity with accuracy. Finally, there are transparency issues regarding the data currently used in the PEG models.
- Indexing approaches (such as that used by Staff and refined by PEG) may not be as robust; but are generally understandable, their limitations clear and the results are replicable. However, a major deficiency with both the Staff and PEG indexing approaches is that the basis for the peer group selection is not well understood.
- Given the current "state of the art", it is VECC's view that direct econometric benchmarking should supplement (and not replace) index benchmarking. Indeed, improved versions of both approaches should be employed in the upcoming review of electricity distributors' 2008 cost of service-based rate applications.
- Near term efforts with respect to index benchmarking should focus on:
 1. Rationalizing the peer groups used in the index benchmarking. The business condition data developed by PEG could form a useful starting point for identifying utilities with common business conditions.
 2. The development of multi-dimensional output quantity indexes, as recommended by PEG.
- Near term efforts with respect to econometric benchmarking should focus on:

1. Improving stakeholder understanding of PEG's benchmarking methodologies and the public availability of the underlying data. In VECC's view this is critical to achieve before any material reliance can be placed on the results, even for screening purposes.
 2. Undertaking the data improvements suggested by PEG and developing/testing alternative measures for capital usage and cost.
 3. Developing and testing measures for other business conditions (e.g. system age) currently not reflected in the formulation.
- Using benchmarking results to set initial rates and/or the escalation terms in incentive rate adjustment mechanisms (see PEG page 69) would represent a significant step change in terms of the degree of reliance on such methods. Such a change should not be undertaken unless there is both a significant improvement in the benchmarking quality (e.g., model formulation, data inputs, etc.) and a well considered decision that the tools were appropriate to the task. This decision should involve some form of proceeding before an OEB panel.

Thank you for the opportunity to comment on the PEG Report. VECC looks forward to participating in the subsequent stages of the Board's consultation process.

Yours truly,



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