***Public Interest Advocacy Centre***
1204-ONE Nicholas Street Ottawa, ON, K1N 7B7
mjanigan@piac.ca 613-562-4002 ext. 26 fax: 613-562-0007

September 25, 2013

**VIA EMAIL and Mail**

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
26th Floor
2300 Yonge Street
Toronto, ON
M4P 1E4

Dear Ms. Walli:

**Re: Renewed Regulatory Framework for Electricity**
**Issuance of Draft Report of the Board - Empirical Work in Support of Incentive Rate Setting in Ontario for Electricity Distributors Defining and Measuring Performance for Electricity Distributor (EB-2010-0379)**
**Vulnerable Energy Consumers Coalition's Written Comments**

On September 6, 2013 the Board issued the above Draft Report, made provision for a Stakeholder Conference to be held on September 11, 2013 and requested comments from parties by September 25, 2013. As Counsel for the Vulnerable Energy Consumers' Coalition (VECC) I am writing to provide VECC's comments on the Board's Draft Report and related issues raised at the Stakeholder Conference. The comments are organized according to the table of contents in the Draft Report. Finally, VECC notes that it provided extensive comments on these issues in its June 2013 Submissions and does not intend to repeat them at this time. Rather the comments below should be considered in conjunction with VECC's original submissions.

## A. RATE ADJUSTMENT PARAMETERS

### 1.0 Inflation Factor

1.1 Draft Board Report

The Board proposes to use a 2-factor input price index, where 30% of the index is based on the average weekly earnings for workers in Ontario ("AWE") and 70% is based on GDP-IPI (FDD), both of which are reported by Statistics Canada[1]. Furthermore, in terms of implementation, the Board has indicated that the two values would be calculated over the same period and the same inflation factor would apply to

[1] Draft Board Report, pages 6, 10 and 13

both the January 1st and May 1st effective dates[2]. Since the AWE index is only published annually (at the beginning of March), this means that the index calculation for a given test year would be based on the annual percentage changes in each index for the prior year relative to two years prior.
The Board rejected the use of 3-factor index that also included the cost of capital due to concerns regarding volatility.

1.2 Comments

*Exclusion of Capital Prices*

In its May 2013 report PEG had recommended the use of 3-factor index that included a sub-index for the price of capital. This price of capital sub-index reflected both annual changes in the cost of materials and labour used in capital projects as well as annual changes in the actual cost of capital (i.e., debt and equity) faced by a utility. The Board's decision to exclude the "price of capital" from the index was not based on the view that the 3-factor index was theoretically unsound but rather on the practical consideration that the results were too volatile to be acceptable for rate-making purposes[3]. The Board also considered various suggestions that were made as to ways the volatility could be mitigated (e.g. three-year averaging and deferral accounts to smooth year to year impacts) and found them not to be appropriate.

During the Stakeholder Conference, Dr. Cronin expressed concern about the exclusion of a capital component and suggested there were ways it could be calculated such that there would not be substantial volatility[4]. In contrast, Professor Yatchew was supportive of the Board's move to a 2-factor index[5] and Mr. Fenrick viewed[6] it as an improvement over PEG's original proposal due to the same volatility issues.

The Board's concerns with the respect to the volatility of the 3-factor index initially proposed by PEG are consistent with the concerns expressed by VECC in its June 2013 submissions as is the Board's direction as set out in the Draft Report. VECC notes that in the earlier consultations and submissions neither Dr. Cronin nor the PWU[7] made any concrete suggestions as to how a 3-factor index could be calculated such that you don't have substantial volatility. Furthermore, in the current consultation, there was no explicit explanation provided as to how this alternative calculation would now be done. As result, it is VECC's view that there is nothing new on the table now for the Board to consider as it finalizes the Draft Report.

[2] Draft Board Report, page 13
[3] Draft Board Report, page 7
[4] Stakeholder Conference, page 34
[5] Stakeholder Conference, page 56
[6] Stakeholder Conference, page 66
[7] In contrast the PWU, in its submissions (page 12) recommended the use of the actual PEG index in conjunction with a deferral account.

Mr. Fenrick's major concern about the construction of the inflation index is that as well as excluding the cost of capital (i.e. cost of debt and equity) use of the 2-factor approach also excludes capital asset inflation[8]. He noted that indexes for this (i.e. the Canadian Electric Utility Construction Price Index – EUCPI) were readily available and claimed that its inclusion would not increase the volatility of the index[9].

VECC notes that this proposal is dealt with in the Board's current Draft Report[10] and that it was rejected primarily due to concerns regarding complexity as opposed to the volatility of the results. In this regard, Mr. Fenrick did acknowledge[11] that there were different ways of constructing the capital asset inflation index for utilities from the EUCPI but argued the differences would be small in terms of the results.

In VECC's view the Board is still left with the same question/issue. During the Stakeholder Conference, Ms. Hare invited Mr. Fenrick (and the CLD) to look at the volatility of their proposal – as compared to the 2-factor index – when making submissions. Without the benefit of this input it is difficult for VECC to opine on the relative merits of the proposal. However, VECC would ask that the Board, in making its determinations, to consider not only the volatility of the results (vis-à-vis the 2-factor method) but also whether the year over year results are materially different (i.e., is there any change/benefit?) and is the calculation transparent and void of potential controversy.

*Labour/Non-Labour Weights*

In its specification of the 2-factor index, the Draft Report gives a 30%/70% weighting to Labour and Non-Labour respectively[12]. These weighting are a combination of OM&A being 39-43% of Total Costs and Labour being 70% of OM&A costs. The OM&A versus Total Costs is based on the PEG calculated cost shares for medium to large utilities while the 70% factor is taken from work done for the 1st Generation PBR[13].

VECC notes that the analysis supporting 1st Generation PBR was undertaken roughly 14 years ago and the data used older than that. VECC also notes that Labour costs as portion of OM&A is collected through the Board's RRR reporting process[14] and can be made available for analysis[15]. As a result, VECC questions why it is necessary to rely on such outdated data for purposes of 4th Generation PBR.

[8] Stakeholder Conference, page 66
[9] Stakeholder Conference, pages 66-67 and page 82
[10] Page 13
[11] Stakeholder Conference, pages 90-91
[12] Draft Board Report, page 11
[13] Draft Board Report, page 11
[14] Section 2.1.5.1 of the RRR Reporting Guidelines
[15] Stakeholder Conference, pages 45-46

*Update Frequency*

In his presentation Mr. Fenrick also raised the question as to whether the GDP-IPI portion of the index could be updated using more recent data since it is published quarterly[16].

In VECC's view there are really two questions here. First, should the GDP-IPI sub-index used to generate the inflation index for rates to be effective January 1st be updated to reflect a more recent annual period than that available for the AWE sub-index and, second, should the GDP-IPI sub-index be further updated for those rates to be effective May 1st the same year?

VECC supports the Board's move to use a consistent inflation factor for both the January 1st and May 1st rate application. As a result, VECC sees no need to further update the inflation index for May 1st based on what would likely be another quarter of GDP-IPI results. However, VECC does see merit in using the most recently available annual change in the GDP-IPI sub-index when determining the inflation factor to be used for January 1st.

## 2.0 X-Factor Components – Productivity Factor

### 2.1 Draft Board Report

The Board has determined that it will continue to rely on the index-based approach for determining the productivity factor[17] and that Toronto Hydro and Hydro One, as outliers, would be excluded from the data set used for the calculation[18]. It has further determined that the appropriate value for the productivity factor is zero and that the value will remain in effect until a distributor's next rebasing[19]. In making its determination that the productivity factor used in the rate adjustment formula should be zero, the Board recognized that the estimate of achieved long-run TFP is negative but also noted that other rate tools exist in the Board's regulatory framework to deal with circumstances such as unforeseen events, government policy directives and abnormal capital requirements[20].

[16] Stakeholder Conference, page 67
[17] Board Draft Report, page 15
[18] Board Draft Report, pages 16-17
[19] Board Draft Report, pages 16 and 20
[20] Board Draft Report, pages 19-20

## 2.2 Comments

*Index Approach*

During the Stakeholder Conference Dr. Yatchew repeated his preference for using an econometric approach to estimating the X-factor[21]. Mr. Fenrick, while not advocating for the use of the econometric approach, noted[22] that the trend variable in PEG's most recent econometric analysis had increased to 1.98 percent after allowing for the explanatory variables in the model.

As noted in PEG's September 2013 Report, there is a difference between the models used for TFP analysis and those use for cost benchmarking. The trend variables reported by PEG in its earlier work and those referenced by Mr. Fenrick are from the cost benchmarking model. In its September 2013 Report, PEG notes that the econometric equations using the TFP cost specification results in trend variables that are lower (i.e. for the analysis including 2012: -0.81 versus -1.98)[23].

In its June submissions, VECC supported the use of the index approach to determining TFP and continues to do so. For the reasons noted then VECC continues to believe that the econometric approach does not given a valid measure of TFP and the index approach selected by the Board is superior. This being said, the recent analyses done by PEG suggest that the results from the two methods are not as great as was suggested at the time of the June submissions.

*Exclusion of Toronto Hydro and Hydro One*

Professor Yatchew continues to advocate for the inclusion of Hydro One and Toronto Hydro in the TFP analysis and suggests there are appropriate ways to do so that do not bias the results (i.e., simple averaging as opposed to aggregation) [24].

The Board considered the use of averaging as opposed to aggregation in it Draft Report and rejected the former based on data issues[25]. With respect, VECC does not understand what the data issues are. As VECC understands, precisely the same data is used in both analyses. It is simply a matter of whether the data is summed and then an aggregate TFP value calculated or individual TFP values are calculated for each distributor (using the same data) and then an average TFP value determined. In VECC's view the Board may wish to review this part of its draft report.

[21] Page 56
[22] Page 68
[23] PEG's September 2012 Report to the Board, pages 17 & 20
[24] Stakeholder Conference, pages 57 and 63
[25] Board Draft Report, page 23

Having said this, VECC does not see the use of averages (with Toronto and Hydro One) or aggregation (without) likely having an impact on the ultimate determination that the TFP value for rate-setting should be zero. The same logic (as set out on pages 19-20 of the Board's Draft Report) still applies.

*Updated Negative TFP Values*

There was considerable discussion at the Stakeholder Conference regarding the fact that with the 2012 data the TFP values calculated by PEG were now negative for the historical period[26] and that there was a significant decline in TFP in 2012[27]. A wide variety of possible reasons for this were noted including unmeasured areas of productivity improvement (e.g. reliability and losses)[28], one-time events (e.g. the recent recession and smart meter installations)[29], perverse incentives in the previous IR plans[30], and the need to address aging infrastructure[31]. In the analysis for its September 2013 Report PEG attempted to remove the effects of the smart meter investment and assess the impact of the OPA's conservation programs on TFP[32]. However there are still anomalies with the 2012 data used such as i) 2012 OPA results were not available so 2011 results were used[33], ii) possible issues with the removal of smart meter costs[34], and iii) one-time impacts due to the implementation of IFRS-related accounting changes[35].

In VECC's view, there are two major implications arising from this. The first is that, while it may be reasonable to conclude from the analysis that past productivity in the industry has been negative, the numbers calculated by PEG should not be viewed has having a high degree of precision, and there may be mitigating reasons why the results should not be directly translated into an X-factor for rate setting purposes. The second is that to the extent these issues can be cleaned up through better reporting requirements, the Board should initiate the necessary changes as the same historical data will be required to do the TFP analysis for the next generation of PBR.

*Board's X-Factor For Rate-Setting*

During the Stakeholder Conference concerns were expressed by both Professor Yatchew[36] and Mr. Fenrick[37] about setting the productivity factor at zero when it is

[26] As noted in the Board Draft Report, pages 18-19
[27] For example, see Stakeholder Conference, pages 10, 52, 61, 68 and 83
[28] Pages 52 and 69
[29] Pages 52 and 61
[30] Page 52
[31] Page 83
[32] PEG Report, September 2013, pages 2-3
[33] PEG Report, September 2013, page 10
[34] Stakeholder Conference, page 137
[35] Stakeholder Conference, page 118
[36] Page 59
[37] Pages 68-70

actually negative and that the resulting rate increases (about 1.3% according to Professor Yatchew[38]) would be insufficient to allow for recovery of necessary costs.

However, this perspective stands in stark contrast to the analysis presented by Mr. Sheppard that if one considers the historic capital additions that would have met the ICM threshold test then, on average, utilities would have been eligible for an additional 2.6% annual increase in rates over the period[39] thereby yielding overall increases in the order of 4% per annum.

In VECC's view, Mr. Sheppard's analysis is highlighting the point the Board raised in its Draft Report when reaching the determination that the X-factor should be set at zero – namely that there are other rate setting tools available to utilities who find the IPI-X formula does not meet their needs. Indeed, what Mr. Sheppard has highlighted is the fact that, in combination, these tools maybe too generous and lead to unacceptable levels of rate increases.

Looking at the issue another way, the calculation of TFP includes all capital additions (save the adjustment for smart meters) and therefore does not recognize that there are other means by which requirements for significant capital additions (i.e., in excess of roughly 130% of depreciation) can be funded, namely ICM rate riders as opposed to base distribution rates. If historic TFP values had been calculated excluding such capital additions then the historic TFP value would be closer to zero if not positive.

Overall, VECC submits that the Board's zero productivity factor is appropriate and that Board should address Mr. Sheppard's concerns by ensuring that the ICM is limited to truly one-time events (e.g. a new transformer station). If utilities need significant continuing capital investment for asset renewal such requirements are more appropriately addressed through a custom-IR application, where questions of investment pacing and long-run planning/need can be properly addressed.

## 3.0 X-Factor Components – Stretch Factor

### 3.1 Draft Board Report

In its Draft Report, the Board indicates that distributors will be assigned to one of five tranches based on their efficiency as determined through PEG's econometric total cost benchmarking model. The Board also determined that stretch factors would be 0%; 0.15%; 0.3%; 0.45% and 0.6% based on whether actual costs were: at least 20% below predicted; between 15% and 20% below predicted; 0% to 15% below predicted; 0% to 15% above predicted or more than 15% above predicted[40].

[38] Page 59
[39] Stakeholder Conference, page 102
[40] Board Draft Report, pages 27-28

The Board also determined that it would consider claims of extenuating circumstances on a case-by-case basis and, if justified, assign the distributor the middle stretch factor (i.e., 0.3%)[41].

1.2 Comments

*Introduction of 5 Stretch Factor Cohorts*

None of the parties presenting or participating in the Stakeholder Conference objected to the Board's plan to increase the number of stretch factor cohorts from three to five. VECC continues to support the use of five stretch factor cohorts for 4th Generation PBR.

*Definition of Cohorts and Assignment of Distributors*

Mr. Fenrick expressed preference for an approach where by a ranking of distributors is developed based on their performance (i.e., actual vs. predicted cost), the distributors were then divided into quintiles and each quintile assigned to a stretch factor cohort such that there were an equal number in each[42]. He suggests that by using this process the assignment of distributors to tranches is not vulnerable to how good the model is (i.e. won't result in a less accurate model assigning more distributors to tranche one and tranche five than a tighter model).

Mr. Fenrick's concerns might be valid if the boundaries set by the Board for the tranches were done without foreknowledge of the resulting number of utilities that would be assigned to each cohort and no consideration given as to whether the results were appropriate. However, VECC notes that it was the Board that set both aspects of the plan with full knowledge of what the results would be. As a result, VECC does not believe that Mr. Fenrick's concerns are valid.

VECC also notes that under Mr. Fenrick's proposal a specific distributor's assignment to the stretch factor cohorts in subsequent years would be based not only on its own cost performance but also how it compared to the cost performance of other distributors. It was clear from the questions[43] at the Stakeholder Conference that distributors wanted to be able to understand (and indeed actually calculate) how their performance was going to measured based on its costs and where those costs will place them in terms of the stretch factor. This is more readily done under the approach set out in the Board's report where the boundaries for the cohorts are known, and distributors are assigned based on their own cost performance.

Based on this feedback, while VECC supported the quintile approach as suggested by Mr. Fenrick in its June submissions, VECC sees merit in the approach adopted in the Board's Draft Report.

[41] Board Draft Report, page 29
[42] Stakeholder Conference, page 71
[43] Stakeholder Conference, pages 126 and 129

In his comments, Professor Yatchew noted that the highest stretch factor cohort currently captured a large range of estimated efficiencies and that it might be appropriate to draw the boundaries between the stretch cohorts differently[44]. He expressed no definitive view as to where they should be set but indicated that comments on the matter would be provided in the final submissions.

Clearly one of the added requirements of the Board's proposed approach (i.e. set the stretch factor cohort boundaries as opposed to using the quintile approach) is that boundaries for the five cohorts must be defined. VECC acknowledges that the definition of the range for each of the five cohorts is a matter of judgment. However, in VECC's view, the result should be one where the bulk of the distributors are assigned to the three more central cohorts and believes that this is a matter the Board can, and has, reasonably determined.

*Stretch Factor Values*

Professor Yatchew had previously suggested that the stretch factor range should be centred around zero, with negative values assigned to relatively "efficient" distributors[45]. However, he appears willing to accept the Board's determination that there should not be negative stretch factors.

Mr. Fenrick requests that the Board consider reducing the stretch factor range to account in recognition of the fact that a zero X-factor value already embodies an implicit stretch factor[46]. VECC does not agree with the view that a zero X-factor includes an implicit stretch factor but rather, as discussed above, a zero value recognizes the other rate-setting tools available to distributors. As a result, VECC does not see a need to adjust the stretch factor range as suggested by Mr. Fenrick.

## B. BENCHMARKING

1.0 Draft Board Report

As noted above, the Board's Draft Report indicates that PEG's econometric model will be used for benchmarking distributor cost performance[47].

2.0 Comments

*Elimination of Peer Groups*

None of the parties presenting or participating in the Stakeholder Conference took exception to the Board's plan to eliminate the use of benchmarking based on peer

[44] Stakeholder Conference, page 58
[45] Stakeholder Conference, page 58
[46] Stakeholder Conference, page 80
[47] Board Draft Report, page 33

groups for purposes of assigning stretch factors in the 4th Generation PBR. Indeed, it was specifically supported by both Professor Yatchew[48] and Mr. Fenrick[49].

VECC notes that its original submissions also called for the elimination of peer group analysis for this purpose and also supports the Board's determination on this matter.

*Use of PEG's Econometric Model for Benchmarking*

In his presentation, Dr. Cronin expressed a preference for determining relative efficiencies based on DEA analysis and noted that this gave materially different results for specific distributors[50].

In VECC's view DEA-type analysis is not sufficiently developed or understood to be applied at this time. VECC notes that the Board has identified this as a matter that may be considered in the future[51] and considers this to be the appropriate approach at this time.

Mr. Fenrick continued to express a preference for his cost per customer econometric model as the basis for benchmarking (in lieu of PEG's model)[52]. During the Stakeholder Conference Mr. Fenrick noted that, contrary to the Board's report, the model used in his final analysis submitted to the Board did not assume a linear relationship between business conditions and costs per customer[53]. With respect to the Board's second concern about constant returns to scale he noted that this was equivalent to assuming TFP growth of zero[54]. He then went on to point out some inconsistencies in the results produced by the PEG model[55] and noted that his model had more statistically significant cost drivers[56].

In response, Mr. Kaufman noted that distributors are a multi-output firm and that is how they are modeled. As a result, it is inappropriate to look at the efficiencies associated with just one output as Mr. Fenrick did in his inconsistency examples[57]. Mr. Kaufman also noted that PEG's model made no assumptions about economies of scale but rather let the actual data determine the model and the relationships. He indicated that in doing so the model was more general and richer. In contrast it is the restrictions in Mr. Fenrick's model that made it easier to introduce new variables and make them significant[58].

[48] Stakeholder Conference, pages 57 and 63
[49] Stakeholder Conference, page 72
[50] Stakeholder Conference, pages 31-33
[51] Board Draft Report, page 38
[52] Stakeholder Conference, page 72
[53] Stakeholder Conference, page 73
[54] Stakeholder Conference, page 74
[55] Stakeholder Conference, pages 77-79
[56] Stakeholder Conference, page 79
[57] Stakeholder Conference, pages 94-95
[58] Stakeholder Conference, page 124

VECC continues to have concerns regarding the arbitrary assumption in Mr. Fenrick's model regarding constant returns to scale and supports the determination in the Draft Report to use the PEG model.

## C. IMPLEMENTATION

### 1.0 Stretch Factor Assignments Every Year

1.1 Draft Board Report

The Draft Report indicates that the total cost benchmarking model will be run annually to determine efficiency rankings and that with each run an additional year of electricity distributor RRR data will be added[59].

1.2 Comments

There was no discussion regarding this aspect of the Draft Report at the Stakeholder Conference. VECC interprets the Draft Report as meaning that the currently estimated model will be re-run each year with updated data to determine the predicted costs which will then be compared to actual costs. However, the model itself will not be re-estimated (i.e. new coefficients will not be determined for each variable). Based on this understanding, VECC supports the approach as set out in the Draft Report.

[59] Draft Board Report, page 39

## 2.0 Productivity Factor Update Every Five Years

2.1 Draft Board Report

The Board indicates that it intends to carry out an update of the productivity factor every five years[60]. The results of the review will automatically apply to all distributors on the Annual IR Index but for those distributors under the Price Cap IR the productivity factor changes will only be implemented at the start of an IR term.

2.2 Comments

Again there was virtually no discussion regarding this aspect of the Draft Report during the Stakeholder Conference. The updating process is different from that recommended by VECC in its June 2013 submissions. However, VECC considers the Board's approach to be reasonable.

## 3.0 Periodic Review

3.1 Draft Board Report

The Board indicates that it also intends to review the models used every five years, including not only reviewing the business conditions used in the models but also exploring alternative approaches to benchmarking and estimating TFP[61].

3.2 Comments

VECC agrees with the scope the Board has set out for future reviews.

Thank you for the opportunity to comment on this important initiative.

Yours truly,

Michael Janigan
Counsel for VECC

[60] Draft Board Report, page 39
[61] Draft Board Report, page 39