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2004 December 13

Mr. John Zych  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319, 26<sup>th</sup> Floor  
2300 Yonge St  
Toronto ON M4P 1E4

*Hand-delivered*

**RE: RP-2004-0188: Evidence Filed Pursuant to Procedural Order No. 2**

Dear Mr. Zych:

This letter conveys evidence being filed by Toronto Hydro-Electric System Limited in the above-noted proceeding in connection with the ratemaking treatment of PILs. Pursuant to Procedural Order No. 2 and particularly Schedule A, item 2, please find enclosed 8 hard copies of the evidence. The evidence consists of a report from the firm KPMG (the 'KPMG Report'), commissioned by Toronto Hydro-Electric System Limited.

In addition, an electronic copy of the KPMG Report has been emailed to Mr. Keith Ritchie, as directed in Procedural Order No. 2.

The following utilities also support the conclusions and recommendations set out in the KPMG Report: Hamilton Hydro, Hydro One, PowerStream, and Veridian Connections.

Yours truly,

A handwritten signature in black ink, appearing to read "R. Zebrowski", written in a cursive style.

R. Zebrowski, Vice President  
Regulatory Services

encl.

:cjm



**Review of Proposed Methodologies for  
the Treatment of Taxes for Rate  
Setting Purposes**

**Report prepared for Toronto Hydro**

December 9, 2004

Mr. Alex J. Schiappa  
Director, Corporate Tax  
Toronto Hydro Corporation  
14 Carlton Street  
Toronto, ON M5B 1K5

December 9, 2004

**Re: Review of Proposed Methodologies for the Treatment of Taxes**

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Dear Mr. Schiappa:

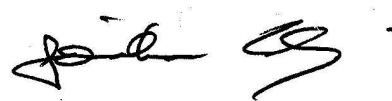
Please find attached our report summarizing KPMG's review of proposed methodologies for the treatment of taxes for rate-setting purposes. As you are aware, this review has been commissioned by Toronto Hydro for its use in providing evidence to the Ontario Energy Board ("OEB") with respect to the treatment of taxes, specifically whether these should or should not be subject to a "true-up", within the OEB's process for setting 2006 distribution rates for Ontario electricity distribution utilities.

It has been a pleasure working with Toronto Hydro staff on this important issue.

Yours very truly



John Krukowski  
*Tax Partner – Power and Utilities Practice*  
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## A. Introduction

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Toronto Hydro has retained KPMG LLP to review four alternative options being considered by the Ontario Energy Board (OEB) for the treatment of taxes for rate setting purposes.<sup>1</sup> Toronto Hydro has asked us to analyze the different options and provide our conclusions and recommendations regarding the appropriateness of each.<sup>2</sup> This report summarizes our findings.

On the basis of our review, our view is that projected taxes should not be subject to true-ups for any reason other than changes in tax rules or rates. This conclusion is more fully outlined below.

## B. Background

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New methodologies for the treatment of taxes will be implemented for the 2006 rate year. The treatment of taxes will occur within the larger context of the overall rate setting process for Local Distribution Companies (LDCs) in Ontario. The rate setting process will involve the following steps:

- First, LDCs need to prepare an estimate of their expenses for 2006. Expenses include operating expenses, depreciation, interest, capital taxes, and required returns on equity capital. An estimate of corporate income taxes will then be made based on these costs and taking into account the after-tax nature of equity returns. The total of all expenses, including expected corporate income taxes, represents a utility's Revenue Requirement.
- Second, the Revenue Requirement will be converted into a specific schedule of rates, based on an estimate of utility volumes for the year.

Under current proposals, estimates of 2006 expenses will be obtained using one of two alternative approaches:

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<sup>1</sup> "Taxes" for the purposes of this discussion represent:

- for LDCs that are not tax-exempt entities, income and capital taxes computed under the Income Tax Act (Canada) and the Corporations Tax Act (Ontario), and
- for LDCs that are exempt from such taxes, Payments In Lieu of Income and Capital Taxes ("PILs") computed under the Electricity Act.

<sup>2</sup> In view of time constraints for delivering our report, it was agreed that the scope of review would not include comparisons to practices in other jurisdictions or other regulated industries.

- **Historic Test Year Approach.** Under this approach, Rates for 2006 will be based on an LDC's historical audited financial statements for 2004, with a number of adjustments to "normalize" its 2004 results to a "typical" year of capital investments, operations and revenues. Some adjustments (Tier 1) may be mechanical in nature and applied by all or most utilities, while others ("Tier 2") may be subject to review and only applicable in certain circumstances. Under this historic test year approach, 2004 actual results are thus used as a proxy for what is expected to happen in 2006.
- **Forward Test Year.** Alternatively, rates for 2006 for a particular utility could be based on a projection of financial results for that year. Much more detailed filings will be required for this approach, since projections are inherently more subjective, and thus more subject to bias, than an approach that simply takes historical data and extrapolates it forward with some adjustments.

Under both approaches, capital and income taxes will be estimated in advance of 2006 and the associated amounts incorporated into a utility's Revenue Requirement.

Because 2006 rates will be set in advance, the question arises as to how to treat any variance between the estimate of taxes incorporated into a utility's 2006 rates and actual taxes ultimately paid. Actual taxes paid will only be known after the close of 2006. One possibility is to make any variances between actual and estimated taxes subject to a "true-up" in the subsequent period (rate year 2007). It should be noted that, in general, other variances between forecast and actual results will not be subject to true-up under the proposed OEB regulatory framework. A true-up, however, is being considered for corporate income and capital taxes. The purpose of this Paper is to look at proposed treatments for true-up/no true-up of taxes in more detail.

## **C. Criteria**

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Before addressing the specific issues and options associated with the treatment of taxes, it is worthwhile considering the criteria that should be used to evaluate alternative regulatory approaches. Thinking about criteria can help us illuminate the objectives that we are seeking to achieve. The criteria that KPMG understands are relevant to evaluate alternative methodologies are as follows:

- Provides appropriate incentives
- Ensures Fairness

- Minimizes Consumer Rates
- Provides Rate Stability
- Minimizes administrative burdens
- Lowers risk to the utility.

These specific criteria are discussed in more detail below.

### **1. Provision of Appropriate Incentives**

Utilities should be encouraged to act in a prudent and responsible manner. They should have an incentive to improve their operating efficiency while maintaining the health of their physical assets. Appropriate incentives will thus help serve one of the OEB's objectives, which is to "promote economic efficiency and cost effectiveness" in the distribution of electricity.<sup>1</sup> Utilities should also have an incentive to minimize their tax burden, since this should ultimately help to reduce their Revenue Requirement, if not in the current year then at least in future years.

Utility shareholders must also have an incentive to continue to invest in the industry, and to provide the capital to ensure utilities' long-term growth and financial solvency. This is also consistent with one of the OEB's objectives, which is "to facilitate the maintenance of a financially viable electricity industry". It is only through shareholder re-investment that utility infrastructure can grow and ensure reliable service.

### **2. Ensures Fairness**

Fairness is frequently used as criteria in addressing public policy issues. It responds to a universal desire for equity and for reasonable treatment. Thus, a process that penalizes utilities for circumstances that are beyond their control might compromise fairness.

Fairness may also require "symmetry". In other words, the rate adjustment process should not be one-sided. If a utility is treated in a certain manner in one circumstance, it should be treated in a similar or parallel manner in the reverse circumstance. Thus, if the rate setting process takes into account the lower taxes paid when expenses are higher than target (and net income lower), a desire for symmetry would suggest that it should also take into account the higher taxes paid when expenses are lower than target (and net income higher).

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<sup>1</sup> *Ontario Energy Board Act, 1998.*

Perceptions of fairness may be enhanced by rate adjustment processes that are objective and do not rely on subjective assessments.

### **3. Minimizes Consumer Rates**

The impact on consumers is another important criterion. All else being equal, it is desirable to have lower prices to the consumer. Some may thus argue that adjustments for taxes should always be done in a manner that results in the lowest rates for consumers. However, a process that emphasizes consumer rate impacts over all other criteria is likely to violate the desire for fairness (and symmetry). It may also result in long-term problems for utility solvency and financial health. These, in turn, could lead to higher rates for consumers in the long-run. Thus, in evaluating measuring performance under these criteria, both short-term and long-term impacts must be considered. A long-term perspective will properly address the OEB's primary objective, which is "to protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service".

### **4. Rate Stability**

The level of rates, which was discussed above, is not the only parameter of importance to consumers. Consumers (and utilities) benefit from having stable rates. Stability enhances predictability, and makes it easier for consumers to make appropriate long-term purchasing decisions. It also minimizes information costs and users' discomfort with change.

### **5. Ease of Administration**

This criterion addresses the desire to have a rate setting process for taxes that is easy to administer. In considering administrative burdens, two perspectives are relevant:

- The burden placed on reporting utilities.
- The burden placed on OEB staff to review rate filings or to review actual results after to the fact.

Administrative burden will tend to be reduced by a rate adjustment process that relies on information that is already available. It will tend to be increased by processes that are complex and highly detailed.

An approach that does not require any true-ups will generally involve less administrative burden, although this burden may not be large if true-ups are relatively "mechanical" in nature. On the other hand, if true-up processes require detailed



investigation and evaluation of the underlying cause of tax variances, then administrative burdens may be quite substantial.

## **6. Lowers Utility Risk**

Lowering the financial and regulatory risk for a utility is a desirable objective, all else being equal. In a lower risk environment, utilities will be able to raise capital at lower cost, ultimately reducing the costs borne by consumers.

## **D. Nature of the Industry**

In our discussions, it is also important to note that the principal costs of electricity LDCs are largely fixed in the short-term. Nevertheless, a large proportion of utilities' Revenue Requirements is collected through volume or demand-based measures rather than through fixed customer or capacity charges. Such variable charges:

- Help allocate costs more fairly to different types and sizes of consumers.
- Are more acceptable to consumers.
- Provides consumers with additional incentive to use electricity efficiently.

Nevertheless, volume or demand-based charges result in revenue risk to the utility. Revenues collected from consumers can vary because of weather or because of economic conditions, both of which are largely out of utilities' control. No true-up has been suggested for the revenue changes that result from volume fluctuations; only the true-up of tax variances is currently under consideration. This true-up of only tax variances could lead to a number of anomalous results, which will be more fully explored later in this Paper.

## **E. The Four Options**

With respect to taxes, one of the specific questions to be addressed by the OEB is as follows:

“To what extent, if any, should differences between forecast taxes/PILs included in 2006 rates and actual taxes/PILs paid in respect of 2006 be trued-up after the fact, with excess refunded to ratepayers and shortfalls charged to ratepayers?”

In relation to this issue, the four options being explored by the OEB for the treatment of taxes are as follows:

- **Option 1: 100% Pass-Through/True-Up.** Under this option, a variance account would be set up for 2006 taxes/PILs. Any variance between actual taxes and forecast taxes would be credited or debited to this account, and cleared to ratepayers in a subsequent year.
- **Option 2: 100% Asymmetrical Pass-Through/True-Up.** This would use the same mechanism as the first position, but would only true up if taxes are less than forecast, so would only allow for a refund to ratepayers.
- **Option 3: Partial True-Up.** This position provides for a similar after-the-fact adjustment to taxes/PILs, but only to the extent that actual and forecast taxes differ due to changes in tax rates or rules.
- **Option 4: No True-Up.** Under this model, taxes/PILs are forecast like any other expense, and that forecast amount is included in rates. Any variance between forecast and actual is enjoyed or borne, as the case may be, by the shareholder.

Throughout this document, we will generally discuss issues first in the context of Options 1 and 4. Together, these two Options illustrate the key differences among the options in terms of their impacts on utilities and consumers. Option 2 is a variant of Option 1 – it offers true-ups but only in those circumstances where a true-up favours the consumer. Option 3 is in most instances identical to Option 4; true-ups are applied only in the limited circumstances in which there has been a change in tax rules or rates.

## **F. Worked Examples**

As an aid in understanding the financial impacts of these issues, KPMG has prepared a simplified model of the PILs estimation and rate adjustment process. This model will be used as the basis for our discussion of possible alternative treatments. It permits easy visualization of the rate impacts of different approaches. The model looks at forecast and actual financial returns in 2006, and models the impacts of possible true-ups in 2007.

For ease of illustration, we assume that there is no growth in expected utility volumes over time and no price inflation.<sup>1</sup> We also assume that changes in revenues or expenses in 2006 relative to forecast are one-time only, and are not repeated in 2007. The utility thus returns to “steady-state” conditions in 2007 after a hypothetical disturbance in 2006. This will simplify our discussion.

## **1. Option 1 – 100% True Up and Revenue Fluctuations**

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### ***a.) Increased Revenue***

Our model is first shown in Exhibit 1. (Exhibits are attached to the back of this document.) In this Exhibit, the first column summarizes forecast revenues and expenses for the utility in 2006. The Revenue Requirement, and therefore forecast revenue under the rate schedule adopted, is \$140 million.<sup>2</sup> The utility projects operating expenses of \$52.8, depreciation of \$21.0, and deemed interest expense of \$25.9 (all figures in millions). These figures are hypothetical, but have been chosen to be similar in proportion to a typical distribution utility in Ontario. They are consistent with a Rate Base of \$625.0 million. Rates are set at a level that provide the utility, under Forecast 2006 results, with a 9.88% return on deemed equity of \$250.0 million. In our example, distribution tariffs work out to \$10.00 per MWh.<sup>3</sup>

The second column shows actual (as opposed to forecast) results. In this first example, we assume that revenues are higher than forecast because of temporary changes in customer usage induced either by weather conditions or by other factors. In our example, we thus assume that usage increases by 0.5 TWh over forecast, resulting in additional revenues of \$5.0 million. Since operating expenses are assumed to be fixed (a reasonable assumption), additional revenues flow through to taxable income. Taxes increase by \$1.805 million relative to plan, leaving utility shareholders with an additional \$3.195 million in net income.

Under Option 1, with 100% True-Up, additional taxes paid in 2006 are recovered by an increase in 2007 rates. In our example, we have assumed that usage in 2007

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<sup>1</sup> We have tested our model under a scenario of modest growth and price inflation. The direction of impact, and our conclusions, remain the same.

<sup>2</sup> Wholesale power costs are not included in our presentation of financial results. This reflects the fact that they are passed through to consumers and are not part of the utility's Revenue Requirement.

<sup>3</sup> For simplicity, we have shown distribution rates as a single fixed rate per MWh although, in practice, there is a variety of different customer classes, each of which has its own tariff structure and billing parameters.

returns to its “normal” or underlying value of 14.0 TWh. Recovery of the additional taxes paid in 2006 is through a surcharge of \$0.2018 per MWh on base distribution rates of \$10.00 per MWh. The surcharge is designed to collect revenue of \$2.825 million in 2007; this amount is calculated as the \$1.805 million in additional PILS expense in 2006, plus a “gross-up” to account for taxes that will be payable on the true-up amount collected from consumers in 2007.

Over the two-year period 2006 and 2007, revenues are \$7.825 million higher than expected. This reflects the increase in utility volumes in 2006, valued at 2006 rates, plus the surcharge of \$2.825 million in 2007.

### ***b.) Decreased Revenue***

In Exhibit 2, we model the reverse scenario. Revenues in 2006 are \$5.0 million lower than expected, and this leads to a decrease in actual taxes relative to plan. Under Option 1, with 100% True-Up, the shortfall in taxes is “refunded” to consumers in 2007. The decrease in revenues in 2007, relative to the case in which no true-up is applied, is \$2.825 million. Over the two-year period 2006 and 2007, revenues are \$7.825 million lower than expected. This reflects the decrease in utility volumes in 2006, valued at 2006 rates, plus the true-up payment of \$2.825 million to consumers in 2007. The various financial impacts are therefore just the reverse of impacts under the higher revenue case in Exhibit 1.

### ***c.) Review of Impacts***

As illustrated above, Option 1 magnifies the impact of volume fluctuations. If revenues are higher or lower than forecast, the full pre-tax amount of this variance accrues to utility shareholders over a two-year period. A decrease in volume (and revenue) in one year results in a decrease in rates (and revenue) in the following year, as changes in income taxes paid are flowed through to consumers.

With respect to our suggested list of criteria, our observations with respect to Option 1 in the context of volume uncertainty are as follows:

- Option 1 provides utilities with the maximum **incentive** to maintain volumes and revenues, since they bear the full impact of revenue reductions relative to plan. They also fully benefit from volume increases.
- Option 1 works *against* the desire for **rate stability**, since temporary volume shortfalls result in refunds in the following year to pass-through the associated

tax impacts. Conversely, volume increases result in a surcharge in the following year.

- Option 1 increases utility **risk**. The rate and revenue instability outlined above increases the volatility of shareholder returns relative to a no true-up scenario and will likely increase the utility's cost of capital.
- The use of a true-up under Option 1 will involve at least some additional **administrative burden** relative to a no-true scenario (Option 4).

## **2. Option 1 – 100% True Up and Expense Fluctuations**

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In the next pair of examples, we look at Option 1 in the context of decreases or increases in expense.

### ***a.) Decreased Expenses***

In Exhibit 3, we examine a decrease in expenses of \$5 million. As with an equivalent *increase* in revenues, the expense decrease results in higher taxable income. This in turn results in higher income taxes and higher net income for utility shareholders. In our example, income taxes are \$1.805 million higher than forecast. This is the same amount by which taxes increased in Exhibit 1 above. Recovery of these higher taxes through a surcharge on rates in 2007 results in a \$2.825 million increase in revenues paid by consumers.

### ***b.) Increased Expenses***

Exhibit 4 illustrates an increase in expenses of \$5 million. Rates in 2007 are \$2.825 million lower in 2007 as a result of the flow-through (on a grossed-up basis) of tax savings observed in 2006.

### ***c.) Review of Impacts***

With respect to our suggested list of criteria, our observations with respect to Option 1 in the context of variances in operating expenses are as follows:

- Option 1 provides utilities with the maximum **incentive** to reduce expenses, since they receive the full pre-tax impact of expense reductions. Option 1 also maximizes the penalty to shareholders from expense increases.

- Option 1 works *against* the desire for **rate stability**, since temporary expense changes are magnified through the pass-through of associated tax impacts to consumers.
- Option 1 may not seem **fair** from consumers' perspectives. When utility expenses are lower than expected, rates in the following year rise as a result of the tax true-up. Consumers, however, did not benefit from the increased net income that resulted from expense decreases.
- Option 1 may also not seem **fair** from utilities' perspectives. When expenses are higher than expected, consumers get a rate reduction even though such increased expenses were not included in the utility's forecast Revenue Requirement and were therefore not collected through rates.
- Option increases utility **risk**. This follows from the full-pass through of expense changes and the increased volatility of shareholder net income.
- The use of a true-up will involve some additional **administrative burden** relative to a no-true scenario.

### **3. Option 4 – No True-Up**

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As a comparison to Option 1, we look at Option 4 under scenarios in which volumes temporarily increase or decrease.

Exhibit 5 shows the impact of an unexpected 0.5 TWh increase volume in 2006. The equivalent scenario under Option 1 was shown in Exhibit 1. Return on equity ("ROE") in 2006 is the same as under Option 1; it rises to 11.16% because of increased volumes. Under Option 4, however, ROE returns to its target 9.88% value in 2007 – there are no true-ups to extend the impact on revenue and net income.

Exhibit 6 shows the impact of volume reductions of 0.5 TWh under Option 4. Again, volume impacts affect net income only in 2006: ROE falls to 8.60% before returning to its target level of 9.88% in 2007. There is no change in consumer rates in either 2006 or 2007 relative to plan.

Relative to Option 1, Option 4 moderates the impact of temporary revenue and expense changes on utility shareholders. Corporate income tax changes dampen (or cushion) the impact of changes in operating income.

## G. Revenue versus Expense Changes

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Relative to forecast and before any possible true-ups, a \$1 increase in revenue has the same effect on utility shareholders as a \$1 decrease in expenses. This can be observed by comparing Exhibits 1 and 3 above. Similarly, a \$1 decrease in revenue has the same effect on shareholders as a \$1 increase in expenses. This can be observed by comparing Exhibit 2 and 4. There are conceptual differences, however, between revenue and expense changes that are worth exploring. This will be the focus of this section. In this section we will discuss changes in revenues and/or expenses and, where appropriate, make reference to the different Options for PILS treatment being considered by the OEB.

We will first discuss fluctuations in revenues.

### 1. Changes in Revenue

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Increases in volumes, and hence revenues, result in an unanticipated increase in utility financial performance. In advance of the year, rates were set at a level to collect the utility's Revenue Requirement at projected volume levels. Unanticipated increases in volume result in revenue that is higher than forecast. While some of this additional revenue is lost to the utility through higher income taxes, the net effect is that the utility still earns a higher than expected rate of return on equity. Thus, any additional income taxes paid are clearly more than offset by higher than anticipated revenues. Had actual volumes been known in advance, then rates would have been set at a correspondingly lower level, specifically the level at which the utility would just collect its Revenue Requirement at the actual volumes ultimately observed. In summary, any additional taxes paid under the scenario in which volumes are higher than expected have already been collected from consumers; they are embedded in the higher than expected revenues that were received from consumers. **It would thus be unreasonable to collect these additional taxes paid in 2006 from consumers a second time in the following year.** This rules out **Option 1**, 100% True-Up, as an appropriate option when increases in taxes are the result of volume, and thus revenue, increases. Because it results in the same treatment in this circumstance, **Option 2**, Asymmetrical True-Up can also be ruled out as a reasonable approach from consumers' perspectives.

Conversely, decreases in volume result in a short-fall in utility revenue and, hence, a shortfall in taxable income. This results in lower income taxes paid than forecast. Utility net income is also lower than forecast – the decrease in income taxes only

partially offsets the decrease in revenues received. Thus, the utility pays lower income taxes than expected, but only because consumers do not make their expected contribution to the utility's Revenue Requirement. Had actual volumes been known in advance, utility rates would have been set at a correspondingly higher level, and there would have been no shortfall in utility revenues and, hence, income taxes. Utility consumers will therefore receive a double-windfall if the shortfall in taxes that results from a shortfall in revenue is refunded in the following year's rates. By the same token, the utility will be penalized twice. This suggests that **Option 1, 100% True-Up**, is unfair. Since the OEB does not contemplate allowing utilities to recover revenue shortfalls from plan, decreases in taxes relative to plan that result from these shortfalls should not result in a payment to consumers.

In the context of changes in volumes and revenues and simply by a process of elimination, **Option 4, No True-Up**, appears the most reasonable of the approaches outlined. (Under a scenario in which tax variances are the result of volume changes, Option 3 is equivalent to Option 4, since Option 3 allows true-ups only in the case where tax rules have changed.)

## **2. Changes in Expenses**

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A decrease in expenses relative to Plan results in the same increase in income taxes as a comparable increase in net revenue. This was observed by comparing Exhibits 1 and 3 above.

Expenses may be lower because the utility has done an excellent job of managing its operations and has found efficiency improvements. Alternatively, the utility may simply be running down its assets by not spending enough on maintenance and repair. In either case, consumers have paid rates for that year that assume a higher level of expenses (and thus a lower level of income tax) than was actually incurred.

In a 100% True-Up Scenario, consumers must pay additional taxes in the following year to offset the higher income tax in year 2006. This has the effect of providing the utility with 100% of the savings associated with efficiency improvements. In the context of expense changes, relevant issues are as follows:

- **Option 1 - 100% True Up** thus provides utilities with the maximum incentive among the various Options to search for efficiency savings, since the utility can collect from consumers any additional taxes that may accrue. Under Option 1, utility rates increase in 2007 as a result of efficiency improvements in 2006. This was illustrated in Exhibit 3 earlier. From consumers' perspective, this appears to be a very unfair result; not only do they not benefit from expense reductions in



2006 (since expenses are not subject to true-up), but they see their rates increase as a result of the true-up for taxes in 2007.

- Under the opposite approach, **Option 4 - No True-Up**, shareholders receive only the after-tax benefit of efficiency improvements, providing them with somewhat less incentive to look for such improvements. The increase in taxes associated with lower spending results in a transfer to government coffers of some portion of the savings found. Option 4 thus provides utilities with somewhat less incentive to look for efficiency improvements, since expense reductions result in some increases in taxes.<sup>1</sup>

In the reverse situation, where expenses are higher than forecast, these additional expenses were not reflected in the utility's Revenue Requirement. The expenses were therefore not reflected in the rates collected from consumers in 2006 and are therefore borne by utility shareholders. Relevant issues are as follows:

- Under **Option 1 - 100% True Up**, the tax savings associated with increased expenses must be refunded to consumers in 2007. This provides the maximum penalty to utility shareholders for expenses that are higher than planned. Arguably, this provides the utility with the greatest incentive to ensure expenses are not higher than forecast.
- **Option 4 – No True Up**, dampens the incentive for expense changes.

Conceivably, one might argue that decisions on whether to use Option 1 or Option 4 could be based on the specific circumstances leading to a variance in taxes. For example, one could argue that true-ups should not be allowed for changes in taxes attributed to volume changes but should be allowed for variances attributable to expense changes. This approach would maximize utilities' incentives to look for efficiency improvements (or to avoid cost overruns) but would avoid the obvious unfairness of true-ups from volume changes. In practice, the variance in taxes in any given year will reflect the combined impact of a large number of revenue and expense changes. Trying to disentangle the causes of this variance into discrete elements would be a complex and difficult process. Hence, we do not believe that such a mixed approach is desirable or workable.

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<sup>1</sup> Since PILS payments are currently being used to offset the cost of stranded debt, this "tax leakage" from efficiency improvements is arguably to the benefit of utility consumers. The No True-Up approach could thus be argued as providing some sharing of savings with consumers.

## **H. Other Options**

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So far, we have discussed issues primarily in the context of Options 1 and 4. In this section, we review Options 2 and 3.

### **1. Option 2 - Asymmetrical True-Up**

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Option 2 allows true-ups only when taxes are less than forecast. It is equivalent to Option 1 under certain circumstances (specifically under lower revenues or higher expenses, as shown in Exhibits 2 and 4).

Conceivably, a proponent could argue that Option 2 can be justified on the grounds that it always serves to keep consumers rates at the lowest level, relative to the other options examined. This argument, however, appears flawed. It ignores the detrimental impact that asymmetrical treatment would have on utilities' level of risk and shareholders' willingness to invest in electricity distribution utilities. Any unwillingness to invest will ultimately result in a higher required rate of return on equity capital. Higher returns will thus eventually be included in utilities' Revenue Requirement and will influence rates in the long-term. Impacts on consumers can only be properly evaluated in this broader context of the long-term impact on the industry.

In one OEB document, the case for Option 2 was presented as the following:

“One rationale for [Option 2] is that, where a utility's income is higher than forecast, taxes are higher, but the ratepayers have already paid those higher taxes in the rates that generated the extra income. The converse is not true where income and therefore taxes are lower than forecast.”

The series of examples presented earlier in this Paper demonstrate that the reasoning above appears to be incorrect and/or incomplete:

- The text above does not properly distinguish among the different causes of changes in utility income. Net income can be higher either because of volume increases or because of expense decreases. In the former case, it is true that consumers have already contributed to, or paid for, income tax increases and should not be subject to a true-up. This is the treatment suggested under Option 2 (and is also the treatment that results under Options 3 and 4). In the latter case, in which expenses decreased, it is much less clear that consumers have already “paid for” the associated tax increase.

- When income and taxes are lower than forecast, the reason may be that volumes are lower and consumers did not make an appropriate contribution to utility costs. In that case, it is very clear that consumers do not deserve a “refund”. Option 2, however, would provide for such a refund, while Options 3 and 4 would not.
- Where taxes are lower because expenses are higher, the reason may be either that expenses, for whatever reason, were underestimated in the rate setting process. In this case, it is probable that rates should have been higher. Thus, a refund is clearly not in order, although Option 2 would provide for such a refund.

In summary, Option 2 appears to be a very punitive approach to rate adjustment. It focuses on the impact to consumers, but is based on a very limited review of possible circumstances and is unfair to utility shareholders.

## **2. Option 3 - True-Up only for Changes in Tax Rules or Rates**

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Under this Option, a true-up would occur only in cases in which there has been a change in the tax rules or tax rates that apply to LDCs. A true-up would also be made in the case in which the Ministry of Revenue has made an administrative policy change that affects the calculation of PILS under the Electricity Act. Such a change in tax rules or the PILS calculation would need to occur between the time at which the utility’s original Revenue Requirement had been set and when taxes were actually assessed. The rationale for a true-up in this scenario is that changes in tax rules and rates are clearly beyond the control of utility management. Under Option 3, utility shareholders will therefore not receive windfall profits or, alternatively, uncompensated losses, from tax rule or rate changes. In other circumstances, however, this Option is the same as Option 4, with no true-up.

In applying Option 3, the true-up amount should be calculated as the difference between:

- Taxes actually paid under the new tax rules/rates in place,
- The taxes that would have been paid under the tax rules and rates originally in place, but with other revenue and expense amounts as were actually incurred.

This option appears attractive under a number of dimensions:

- It should slightly reduce utility financial **risk** relative to a pure no-true up scenario (Option 4), and thus may reduce required equity returns in the long-run.
- It is **fair**, since true-ups reflect only tax rule/rate changes, which are clearly beyond the control of utility management.

There will be some administrative burden, since variance calculations will require PILS to be recalculated assuming no tax rule changes. Estimating the impact of tax rule changes, however, will be much less difficult, for example, than trying to identify the contribution of revenue versus expense changes to PILS variances observed.

We summarize the advantages and disadvantages of various options in the summary table below.

## Summary Table – Review of Options

	<b>Option 1 100% True-Up</b>	<b>Option 2 Asymmetrical True-Up</b>	<b>Option 3 True-Up Only for Tax Rule Changes</b>	<b>Option 4 No True Up</b>
<b>Incentives</b>	Maximizes incentives for revenue and expense management. However, eliminates utility's incentive to look for tax savings.	Maximizes incentive to avoid revenue decreases and expense increases. Provides moderate incentives to increase revenue and decrease expenses. Eliminates utility's incentive to look for tax savings.	Provides moderate incentives for revenue and expense management. Also provides incentive to look for tax savings (but not to lobby for rule changes).	Provides moderate incentives for revenue and expense management. Also provides incentive to look for tax savings.
<b>Fairness</b>	<b>Low</b> -When revenues fluctuate, utilities collect/pay taxes on revenue variance twice.	<b>Very low</b> Asymmetrical treatment of utility shareholders to benefit consumers.	<b>Most fair.</b> Changes in tax rules, which are clearly beyond utility control, are subject to true-up. Utility can not earn wind-fall profits or incur losses.	<b>Neutral</b>
<b>Minimizes Consumer Rates</b>	<b>Neutral.</b> Impact can be positive or negative.	<b>Minimizes Rates in Short Term.</b> Reflects fact that only tax reductions are subject to true up.	<b>Neutral.</b> Impact can be positive or negative.	<b>Neutral.</b> Impact can be positive or negative.
<b>Rate Stability</b>	Increases rate volatility relative to Option 1	Rates can only decrease as a result of true-ups, a positive for consumers in short-run.	<b>High stability.</b> True-ups only employed for tax-rule changes.	<b>Highest.</b> Provides highest rate stability.
<b>Minimizes Administrative Burden</b>	Depends on true-up process.	Depends on true-up process.	<b>Limited burden,</b> given limited role for true-ups.	<b>Lowest burden,</b> since true-up not required.
<b>Utility Risk</b>	<b>High Risk.</b> Maximizes changes in net income from revenue and expense fluctuations, and therefore increases risk relative to Option 4	<b>Highest risk.</b> Asymmetrical treatment of tax variances increases risk to shareholders and will likely increase required rates of return.	<b>Lowest risk.</b> Tax rule changes are flowed through to consumers.	<b>Moderate risk.</b> Financial risk is moderated, since shareholders incur revenue and expense variances on an after-tax basis.

## **I. Conclusions**

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Based on our analysis, we have concluded that Options 3 and 4 are both reasonable approaches for the treatment of tax variances under the 2006 rate setting process. Option 3 has some advantages relative to Option 4, since it reduces utility risk somewhat and seems somewhat fairer to both consumers and utility shareholders.

In contrast, Options 1 and 2 entail significant disadvantages that we believe make their use in the rate setting process inappropriate.

# Exhibits

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**EXHIBIT 1 - 100% True-Up with Increased Revenue**

	Column 3		Column 4		Required True-Up (Grossed- Up)	Forecast 2007 Results	2007 Results with True- Up	Change vs 2007 Base	Sum of 2006 & 2007 Changes
	Forecast 2006 Results	Change	Actual 2006 Results	Change					
Tax Methodology	1								
TWh delivered	14.0	0.5	14.5			14.0	14.0		
Revenue per MWh Increase	\$10.00		\$10.00			\$10.00	\$10.20	2.02%	
Base Revenue (Millions)	140.0		145.0	5.000		140.0	140.0	0.000	5.000
True-Up							2.8	2.825	2.825
Total Revenue	140.0		145.0	5.000		140.0	142.8	2.825	7.825
Operating Expenses	52.8	0.0	52.8			52.8	52.8		
Depreciation	21.0		21.0			21.0	21.0		
Regulatory Net Income	66.2		71.2	5.000		66.2	69.0	2.825	7.825
Deemed Interest	25.9		25.9			25.9	25.9		
Net Income Before Tax	40.3		45.3	5.000		40.3	43.2	2.825	7.825
Corporate Income Tax	15.6		17.5	1.805	2.825	15.6	16.7	1.020	2.825
Net Income	24.7		27.9	3.195		24.7	26.5	1.805	5.000
Return on Equity	9.88%		11.16%	1.28%		9.88%	10.60%	0.72%	
Average Return On Equity '06 & '07							10.88%		
Deemed Equity	250.0		250.0			250.0	250.0		
Regulatory Net Income (RNI)	66.2		71.2			66.2	69.0		
Deduct Interest	(25.9)		(25.9)			(25.9)	(25.9)		
Add Depreciation	21.0		21.0			21.0	21.0		
Deduct CCA	(18.0)		(18.0)			(18.0)	(18.0)		
Regulatory/Actual Taxable Income	43.3		48.3	5.0		43.3	46.2		
Deemed Tax Rate	36.10%		36.10%			36.10%	36.10%		
Total Regulatory Income Tax (TRIT)/Actual Tax	15.6		17.5			15.6	16.7		



**EXHIBIT 2 - 100% True-Up with Decreased Revenue**

	Column 3		Column 4		Required True-Up (Grossed- Up)	Forecast 2007 Results	2007 Results with True- Up	Change vs 2007 Base	Sum of 2006 & 2007 Changes
	Forecast 2006 Results	Change	Actual 2006 Results	Change					
Tax Methodology	1								
TWh delivered	14.0	(0.5)	13.5			14.0	14.0		
Revenue per MWh Increase	\$10.00		\$10.00			\$10.00	\$9.80	-2.02%	
Base Revenue (Millions)	140.0		135.0	(5.000)		140.0	140.0	0.000	(5.000)
True-Up							(2.8)	(2.825)	(2.825)
Total Revenue	140.0		135.0	(5.000)		140.0	137.2	(2.825)	(7.825)
Operating Expenses	52.8	0.0	52.8			52.8	52.8		
Depreciation	21.0		21.0			21.0	21.0		
Regulatory Net Income	66.2		61.2	(5.000)		66.2	63.4	(2.825)	(7.825)
Deemed Interest	25.9		25.9			25.9	25.9		
Net Income Before Tax	40.3		35.3	(5.000)		40.3	37.5	(2.825)	(7.825)
Corporate Income Tax	15.6		13.8	(1.805)	(2.825)	15.6	14.6	(1.020)	(2.825)
Net Income	24.7		21.5	(3.195)		24.7	22.9	(1.805)	(5.000)
Return on Equity	9.88%		8.60%	-1.28%		9.88%	9.16%	-0.72%	
Average Return On Equity '06 & '07							8.88%		
Deemed Equity	250.0		250.0			250.0	250.0		
Regulatory Net Income (RNI)	66.2		61.2			66.2	63.4		
Deduct Interest	(25.9)		(25.9)			(25.9)	(25.9)		
Add Depreciation	21.0		21.0			21.0	21.0		
Deduct CCA	(18.0)		(18.0)			(18.0)	(18.0)		
Regulatory/Actual Taxable Income	43.3		38.3	(5.0)		43.3	40.5		
Deemed Tax Rate	36.10%		36.10%			36.10%	36.10%		
Total Regulatory Income Tax (TRIT)/Actual Tax	15.6		13.8			15.6	14.6		

**EXHIBIT 3 - 100% True-Up with Decreased Expenses**

	Column 3		Column 4		Required True-Up (Grossed- Up)	Forecast 2007 Results	2007 Results with True- Up	Change vs 2007 Base	Sum of 2006 & 2007 Changes
	Forecast 2006 Results	Change	Actual 2006 Results	Change					
Tax Methodology	1								
TWh delivered	14.0	0.0	14.0			14.0	14.0		
Revenue per MWh Increase	\$10.00		\$10.00			\$10.00	\$10.20	2.02%	
Base Revenue (Millions)	140.0		140.0	0.000		140.0	140.0	0.000	0.000
True-Up							2.8	2.825	2.825
Total Revenue	140.0		140.0	0.000		140.0	142.8	2.825	2.825
Operating Expenses	52.8	(5.0)	47.8			52.8	52.8		
Depreciation	21.0		21.0			21.0	21.0		
Regulatory Net Income	66.2		71.2	5.000		66.2	69.0	2.825	7.825
Deemed Interest	25.9		25.9			25.9	25.9		
Net Income Before Tax	40.3		45.3	5.000		40.3	43.2	2.825	7.825
Corporate Income Tax	15.6		17.5	1.805	2.825	15.6	16.7	1.020	2.825
Net Income	24.7		27.9	3.195		24.7	26.5	1.805	5.000
Return on Equity	9.88%		11.16%	1.28%		9.88%	10.60%	0.72%	
Average Return On Equity '06 & '07							10.88%		
Deemed Equity	250.0		250.0			250.0	250.0		
Regulatory Net Income (RNI)	66.2		71.2			66.2	69.0		
Deduct Interest	(25.9)		(25.9)			(25.9)	(25.9)		
Add Depreciation	21.0		21.0			21.0	21.0		
Deduct CCA	(18.0)		(18.0)			(18.0)	(18.0)		
Regulatory/Actual Taxable Income	43.3		48.3	5.0		43.3	46.2		
Deemed Tax Rate	36.10%		36.10%			36.10%	36.10%		
Total Regulatory Income Tax (TRIT)/Actual Tax	15.6		17.5			15.6	16.7		

**EXHIBIT 4 - 100% True-Up with Increased Expenses**

	Column 3		Column 4		Required True-Up (Grossed-Up)	Forecast 2007 Results	2007 Results with True-Up	Change vs 2007 Base	Sum of 2006 & 2007 Changes
	Forecast 2006 Results	Change	Actual 2006 Results	Change					
Tax Methodology	<b>1</b>								
TWh delivered	14.0	0.0	14.0			14.0	14.0		
Revenue per MWh Increase	\$10.00		\$10.00			\$10.00	\$9.80	-2.02%	
Base Revenue (Millions)	140.0		140.0	0.000		140.0	140.0	0.000	0.000
True-Up							(2.8)	(2.825)	(2.825)
Total Revenue	140.0		140.0	0.000		140.0	137.2	(2.825)	(2.825)
Operating Expenses	52.8	5.0	57.8			52.8	52.8		
Depreciation	21.0		21.0			21.0	21.0		
Regulatory Net Income	66.2		61.2	(5.000)		66.2	63.4	(2.825)	(7.825)
Deemed Interest	25.9		25.9			25.9	25.9		
Net Income Before Tax	40.3		35.3	(5.000)		40.3	37.5	(2.825)	(7.825)
Corporate Income Tax	15.6		13.8	(1.805)	(2.825)	15.6	14.6	(1.020)	(2.825)
Net Income	24.7		21.5	(3.195)		24.7	22.9	(1.805)	(5.000)
Return on Equity	9.88%		8.60%	-1.28%		9.88%	9.16%	-0.72%	
Average Return On Equity '06 & '07							8.88%		
Deemed Equity	250.0		250.0			250.0	250.0		
Regulatory Net Income (RNI)	66.2		61.2			66.2	63.4		
Deduct Interest	(25.9)		(25.9)			(25.9)	(25.9)		
Add Depreciation	21.0		21.0			21.0	21.0		
Deduct CCA	(18.0)		(18.0)			(18.0)	(18.0)		
Regulatory/Actual Taxable Income	43.3		38.3	(5.0)		43.3	40.5		
Deemed Tax Rate	36.10%		36.10%			36.10%	36.10%		
Total Regulatory Income Tax (TRIT)/Actual Tax	15.6		13.8			15.6	14.6		



