Board Staff Proposal Paper

Interest Rates for Regulatory Accounts of Utilities

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Purpose

The Ontario Energy Board is performing a review of interest rates used for deferral and variance accounts ("regulatory accounts") in the gas and electric utility sectors. Regulatory accounts are accounts in the approved Uniform Systems of Accounts to which interest is applied, e.g. regulatory assets/obligations, construction work in progress. The review does not include discussion of the cost of debt or equity used in establishing allowed returns in rate proceedings.

In the electricity sector, interest rates used for regulatory accounts are higher than current market rates. Interest rates are generally set on regulatory accounts across the board based on long-term debt interest rate methodology. In the gas sector, where the interest rates methodology follows practices evolved over many years, the rate of interest issue is addressed through each gas utility's proceeding. In the gas sector, interest rates used for regulatory accounts are also generally higher than current market rates.

The Board plans to implement a new uniform and consistent approach to formulate interest rates which is to be used by Ontario gas and electric utilities. Board Staff have prepared this document that outlines the current practices in the two sectors and proposes an alternative approach upon which the Board is seeking comment.

Summary of Proposal

For regulatory accounts, except for construction work in progress, Board staff propose a rate based on the one-year Canada T-bill rate, plus a corporate spread, to be used as a basis for determining interest rates. A short-term interest rate is appropriate due to the temporary nature of the accounts to which they relate and disposition of account balances in rates over a relatively short period of time.

Regarding the Construction Work in Progress account in the electricity sector, Board Staff propose a short or mid-term rate, depending on the length of construction period. If the time to substantial project completion, or the time to when the asset is put into productive use, is expected to be less than, or equal to, one year, the short-term rate prescribed by the Board for regulatory accounts is proposed to be used. If the time to project completion is expected to be greater than one year, the mid-term rate prescribed by the Board is proposed to be used. These rates are discussed in the Alternatives Considered section of this paper.

These rates will be prescribed and published by the Board. When implemented, these rates will be effective May 1, 2006 for electric utilities. They will be reviewed quarterly and updated if they change more than 25 basis points. With respect to gas utilities, where the Board has approved a specific interest rate in a previous proceeding, this rate will remain in effect until the Board reviews the matter in a subsequent proceeding. At that time, the Board may direct the utility to use the standard rate methodology that results from this process.

The Board indicated in its report regarding the 2006 Electricity Distribution Rate Handbook (EDRH), proceeding RP-2004-0188 that the time to address the interest rate for deferral accounts issue may be when the issues involved in establishing the applicable cost of capital are reviewed. However, the Board is concerned that interest rates used for regulatory accounts continue to be well above the prevailing market rates and therefore they warrant a more immediate review rather than awaiting the review of cost of capital which will not come into effect until the 2007 rate year.

Background

The general issue is that the Board believes it is in the consumers' interest to have interest rates applicable to regulatory accounts that are reflective of market rates and responsive to ongoing changes in market conditions. Thus a methodology is required which adjusts interest rates when changes occur in interest rates in the market.

The following discussion describes some particular issues that have arisen with respect to the setting of interest rates in the electric utility sector over the past few years. As interest rates in the gas sector are set through individual decisions, there are no particular issues arising specifically in the gas sector.

Electricity regulatory accounts were expected to be temporary in nature for an initial PBR period of three years. It was determined at the time, for administrative simplicity, that the deemed debt rate (DR) prescribed in the 2000 EDRH, which has a longer term focus, would be used by utilities for the first generation PBR three-year term (2000 to 2002). However, Bill 210, *The Electricity, Pricing, Conservation and Supply Act*, 2002 constraints that froze distribution rates in 2002 continued these interest rates beyond the intended period.

Many regulatory accounts were designed to be temporary in nature (e.g. account 1570, Qualifying Transition Costs), with recovery planned soon after costs were incurred and after market opening. Appendix A lists the regulatory accounts currently authorized to attract interest (i.e. carrying charges). However, the rate freeze prescribed by Bill 210 meant that the underlying interest treatment was also frozen.

Low interest rates prevail in current market conditions that have developed since the freezing of rates under Bill 210. Rates in the market have dropped in relation to these interest rates established in the 2000 EDRH (issued for use in setting electricity distribution rates for 2001). The 2006 rate applications filed with the Board under the 2006 EDRH included claims by utilities for the disposition of their regulatory account balances (referred to as "regulatory assets" under Bill 210) derived using the DR established in the 2000 EDRH. Because these rates are higher than current lending rates of commercial financial institutions, electricity customers could be paying higher distribution rates since the interest rates are applied to utilities' account balances which are ultimately passed through in distribution rates when approved by the Board.

With the current structure in place, it has been argued that a utility can "profit" on its regulatory asset accounts by borrowing money at lower commercial lending rates than what the utility can recover on its regulatory asset accounts using the DR.

Scope

The scope of this review covers interest rates applicable to utilities' regulatory account balances and related processes. It considers alternative approaches and the basis used for calculating other rates. The review presents recommendations and proposes the timing of implementation. This review did not address the debt rate used for utilities' return on equity or cost of capital calculations used in establishing distribution rates. For electricity utilities, another Board process will address these issues for implementation in 2007 rates.

Methodology Used for Prescribing Board Interest Rates for Electric Utilities (2000-2005)

A review of the 2000 EDRH, published in November 2000, found that actual values of both the debt rate ("DR") and the return on common equity ("ROE") of 9.88% had been calculated using data from December 1999. Chart 1 below shows the deemed capital structure, the associated common equity and debt rates ratios and debt cost rates used to determine the electricity utility's allowed market base rate of return.

Chart 1 – Deemed Common Equity (CER%) Ratios and Debt Ratios (DR%) and Debt Cost Rates (DR)

Size of Utility Rate Base*	CER%	(1-CER)% or DR%	DR
Greater than $1 billion	35%	65%	6.80%
Between $250 million and $1 billion	40%	60%	6.90%
Between $100 million and $250 million	45%	55%	7.00%
Under $100 million	50%	50%	7.25%

Source: ERDH November 2000 * Per deemed capital structure

Comparison and Analysis of Debt Rate to Market Rates

Historical benchmark rates posted for the relevant periods are summarized in Table 1 in Appendix B.

Table 2 in Appendix B graphically illustrates the historical yields of Canada bonds and T-bills versus the range of deemed debt rates (DR). Over time the gap between the deemed debt rate and the treasury bond has widened. The long and short term rates were relatively close to each other at the start of the period in 2000. However, they have ranged widely over the past few years.

To calculate the DR for electric utilities, the average forecasted 10-year Government of Canada bond yield of 6.15% in December 1999 was used (average of 3 month Consensus Economics forecast and 12 month Consensus Economics forecast that existed in December 1999). Added to this was a 5 basis point spread that existed between the 10-year and 30-year Canada bonds in December 1999, to get a long Canada bond forecast of 6.20%.

In addition a size-based risk premium, depending on the utility's rate base, was added to this amount to generate the DR. On an increasing scale, a size-based risk premium of up to 45 basis points was added to generate the 7.25% DR for a small rate base utility, in addition to a 60 basis point corporate spread used for all utilities. The 60 basis points spread was added to the long Canada bond yield generating a 6.8% DR for large utilities. A "corporate spread" is added to the rate applicable to government bonds or reflects higher risks associated with corporations as compared to governments. In summary a total spread of 60 to 105 basis points was added to the long Canada bond rate, depending on the size of the utility's rate base.

The long Canada bond forecast of 6.20% used to calculate the DR (in effect from 2000 to April 30, 2006) can be compared to the actual average long Canada bond yield of 5.27% over the period December 2000 to December 2005. It is apparent that the DR has been overstated by approximately 93 basis points over this period, on average, and calculated interest has been overstated as a result. This overstatement has ranged from a low of 9 basis points in May 2001 when the yield was 6.11%, to a high of 218 basis points in December 2005, when the yield was 4.02%. The trend to date has been to an increasing gap. However, we have been in a period of historically low interest rates.

In an alternative comparison, the short term rates were 4.78% for three-month T-bills and 5.65% for one-year T-bills in December 1999. The average rate for 3-month T-bills was 2.86% for the period December 2000 to December 2005 and the average rate for one-year T-bills was 3.14% for the same time frame. In relation to these December 1999 benchmark rates, the DR was overstated on average by about 190 basis points for 3-month T-bills and about 250 basis points for one-year T-bills.

The average credit spread of long-term corporate bonds versus long-term Canada bonds (per Bank of Canada) over the period December 2000 to December 2005 was 115 basis points. The credit spread of about 60 basis points (large rate base utility) to 105 basis points (small rate base utility) used in the 2000 EDRH over the same period is considered to be somewhat overstated, as utilities are generally viewed as lower risk than the average corporate bond. Utilities typically have lower default risk than the average corporate bond due to the long-term stability of earnings and cash flow in the rate-regulated industry.

The interest rates being used pursuant to the 2006 EDRH are outlined in Appendix C, and are effectively 1% lower than those provided in the 2000 EDRH.

Methodology Used for Prescribing Board Interest Rates for Gas Utilities

There is no consistent basis for assigning interest rates for regulatory accounts across the gas utilities. The three gas utilities in Ontario each have differently set rates which were arrived at by individual Board decisions and contributions by the utilities and intervenors. See Chart 2 below for an analysis of these rates.

Chart 2 – Analysis of Current Interest Rates in Gas Utility Industry

Company	Decision Reference	Short-term Rate	Long-term Rate
Natural Resource Gas	October 6, 2005 (RP-2004-0167, EB-2005-0188)	5.50% or 150 basis points above forecast prime of 4.00%, as set in the Board's December 20, 2004 Decision	8.00%
Enbridge	February 9, 2006 (EB-2005-0001)	3.46%	7.44%
Union	March 18, 2004 (RP-2003-0063)	4.15%	8.45%

In the gas utility industry, interest on the regulatory accounts is generally calculated using the short-term debt rate of the utility. It is evident from Chart 2 above that these short-term debt rates vary widely compared to the current T-bill rates. As at February 28, 2006, per the Bank of Canada, the yield on one-year Canada T-bills was 4.02%. Adding a corporate spread of 13 basis points to this one-year Canada T-bill rate of 4.02% gives a one-year corporate yield of 4.15% (see Proposed Interest Rate Methodology section for discussion of corporate spread). Therefore, the short-term rates outlined in Chart 2 and being used are lower by 69 basis points for Enbridge and higher by 135 basis points for Natural Resource Gas.

In cases where the gas utility does not submit an annual rate application, the rate used for regulatory accounts in the current period is based on an outdated rate established for a prior period. The dependence on a rate application, which is not always an annual occurrence for gas utilities, to bring interest rates in line with current market rates for regulatory accounts is a fundamental weakness. It should also be noted that the gas utility quarterly rates adjustment mechanism (QRAM) application and approval process does not incorporate a process for adjusting interest rates for the associated accounts.

Alternatives Considered

For Regulatory Accounts Except Construction Work in Progress:

(i) One-Year Short Term Interest Rate

A short-term interest rate, such as the actual one-year T-bill rate published by the Bank of Canada, adjusted for a corporate spread, can be used as a basis for calculating interest on regulatory accounts, instead of the DR. A one-year rate is consistent with the normal lifecycle expected of the underlying regulatory assets or obligations. See Table 4 in Appendix C for one-year rates.

(ii) 90-Day Short Term Interest Rate

The 90-day short-term interest rate could be used and based on the upcoming 90-day Canada T-bill rate forecasted 3 months into the future, as published in Consensus Economics' Consensus Forecast, plus a spread. The 90-day Canada T-bill rate forecasted 3 months into the future as at February 2006 was 3.9%, per Consensus Economics (see Table 4 in Appendix C).

(iii) Prime Rate Plus a Spread

An alternative to using a 90-day T-bill interest rate plus a spread, as a benchmark, is to use the prime interest rate. However, the prime interest rate reflects a number of other factors such as monetary policy of the Bank of Canada and the policy context of the chartered banks. As such it is not truly a market rate and is therefore not as objective a rate as the one-year short term or 90-day T-bill rate.

For Construction Work in Progress:

In the energy industry, the interest rate used for the purposes of calculating the interest applied to the construction work in progress (CWIP) account for the cost of financing incurred during the construction period is approved by the regulator. This interest rate is referred to as the interest during construction (IDC). In terms of financing, some utilities who use short-term financing during the construction phase, replace it with mid-term financing when the completed asset is placed in service. Other utilities finance construction as part of their general borrowing program or from equity. Note the Board has never approved an equity component with respect to an allowance for interest on construction work in progress.

Calculating a blended rate on an electricity LDC-specific basis is burdensome for utilities to constantly determine this rate for their utility, and monitoring about 90 electricity utilities' individual rates is not practical for the Board. Therefore the use of a proxy rate that is market based is appropriate.

A reasonable approach involves two rates, a short or mid-term rate, depending on the estimated length of construction period. If the estimated time to substantial project

completion, or the time to when the asset is put into productive use, is up to one year, the short-term rate as prescribed by the Board for regulatory accounts is used. If the estimated time to project completion is greater than one year, a mid-term rate as prescribed by the Board is used. A mid-term rate is used as projects are typically less than or equal to ten years in length.

Gas utilities will continue to use their Board-approved debt rate until a future proceeding. At that time, the Board may consider the application of the above approach.

Proposed Interest Rate Methodology

1. A one-year (actual not forecasted) short term interest rate is proposed for regulatory accounts and this rate will be updated every quarter, if the rate currently published by the OEB differs by more than 25 basis points from the current rate.

   A one-year rate is preferable as it is consistent with the term typically associated with the underlying assets or obligations. This approach is consistent with a regulatory environment where review and disposition of account balances are planned at least once annually, in conformance with Bill 23, the *Ontario Energy Board Consumer Protection and Governance Act*, 2003. In addition, in an incentive or non-annual rate-setting environment, tying the determination of interest rates to rate application proceedings does not provide for a consistent and timely approach.

   It is proposed for the second quarter of 2006, that an actual one-year T-bill rate 4.02% as at February 28, 2006, per Bank of Canada, plus a corporate spread of 13 basis points be used to arrive at a short-term rate of 4.15%. This spread is based on the spread of 3-month prime corporate paper rate (3.87%) over the 90-day Canada T-bill rate (3.74%), per Bank of Canada, as at February 28, 2006.

   In terms of the timing of the interest rates determination, the one-year actual rate at the month end (one month) prior to the end of the quarter (e.g. August 31 for quarter starting October 1), plus the applied corporate spread, would be obtained prior to the quarter beginning and published on the OEB Web site shortly thereafter effective for the next quarter (e.g. October to December). This would be in time for the October month-end closing of the utility's books.

   When implemented, the proposed interest rate of 4.15% will be effective May 1, 2006 for all accounts of electricity utilities previously authorized to attract carrying charges. The previous interest rates authorized for these accounts remain in effect to April 30, 2006. This includes the 1508 sub-accounts OEB Cost Assessment and Pension Contributions at interest rates of 5.75% and 3.88% respectively.

   With respect to gas utilities, where the Board has approved a specific interest rate in a previous proceeding, this rate will remain in effect until the Board reviews the matter in a subsequent proceeding. At that time, it is expected that the Board will generally use the standard rate that results from this proposal when setting interest rates.

2. Regarding the Construction Work in Progress account in the electricity sector, a short or mid-term rate is proposed, depending on the length of construction period. If the time to substantial project completion, or the time to when the asset is put into productive use, is expected to be less than, or equal to, one year, the short-term rate prescribed by the Board for regulatory accounts is proposed to be used. If the time to project completion is expected to be greater than one year, the mid-term rate prescribed by the Board is proposed to be used.

   The actual corporate paper mid-term rate will be used as a base. A mid-term rate is more appropriate than a long-term rate as projects are typically less than or equal to ten years in length, and a mid-term rate approximates this duration.

   It is proposed that the Scotia Capital Inc. All Corporates Mid-Term Average Weighted Yield, as published on the Bank of Canada's website, will be used as the actual corporate paper mid-term rate. This rate was 4.68% as at February 28, 2006. This includes a 56 basis point spread over the actual 10-year Canada bond yield of 4.12% on that date.

   This rate will be updated every quarter, if the rate currently published by the OEB differs by 25 basis points or more from the current rate. The conditions for this mid-term rate will be the same as prescribed for short-term rates above in terms of its updating, implementation date and applicability to gas utilities.

3. In summary, Board staff recommends the interest rate methodology proposed in this paper for electricity utilities effective May 1, 2006 and for gas utilities when this matter is reviewed in a future gas rates proceeding. Where there are special circumstances impacting utility-specific interest rates, such that they are materially different from these prescribed rates, the Board may consider the review of these on a case-by-case basis.

Appendix A

Listing of Accounts in the Accounting Procedures Handbook (APH) Authorized for Carrying Charges – Electricity Sector

- Carrying charges apply to these APH accounts: 1520 (closed Nov. 11, 2002), 1562, 1563, 1570 (closed Dec. 31, 2002), 1572, 1580, 1582, 1584, 1586, 1588 and 1590. Board authorized rate of interest to be used for calculating carrying charges is specified in the Accounting Procedures Handbook (APH) under Articles 480 and 490 based on an LDC's debt rate per 2000 Electricity Distribution Rate Handbook.

- Carrying charges applied to account 1565 (CDM) at an interest rate of 5.75 percent up to an effective date of February 28, 2005 (per Board letter issued October 29, 2004).

- Account 1508 - Other Regulatory Assets - Sub-account OEB Cost Assessments, carrying charges applies at an interest rate of 5.75 percent (per Board letter issued December 20, 2004)

- Account 1508 - Other Regulatory Assets - Sub-account Pension Contributions. For 2004 fiscal year, the interest is 5.75 percent for Enersource Hydro Mississauga and Brampton Hydro One Networks. For 2005, the Board authorized a rate of interest of 3.88% for all LDCs (per Board letter issued February 20, 2006).

- Account 2055 – Construction Work in Progress – Electric. The APH in Article 480 (page 4) states: "The Board views the debt cost rate (DCR) established in the Rate Handbook as a reasonable rate to be used as the maximum allowable limit for the AFUDC in the first generation PBR period. A utility must use Table 3-1 of the Rate Handbook to determine the applicable DCR based on its deemed capital structure. The Board may revisit the appropriateness of the DCR for purposes of the AFUDC rate for the period after the first generation PBR."

Appendix B

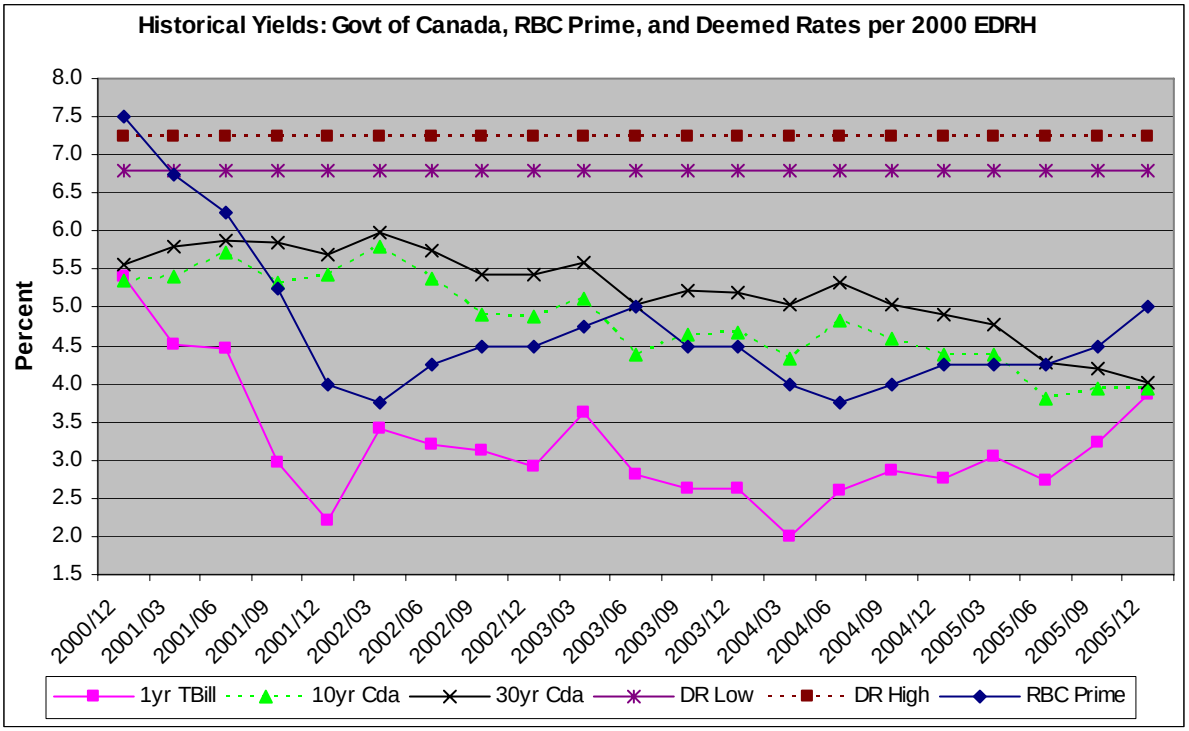
Historical Interest Rates

Table 1 – Range of Benchmark Rates

Type of Treasury Security	Average of Actual Dec 1999 Rates	3 month Forecasted Rate in Dec 1999*	12 month Forecasted Rate in Dec 1999*	Average of Actual Dec 2000 to Dec 2005 Rates	Lowest Actual Rate from Dec 2000 to Dec 2005	Highest Actual Rate from Dec 2000 to Dec 2005
10 year Government of Canada bond yield	6.14%	6.2%	6.1%	4.85%	3.73%	5.99%
Long term (e.g. 30 year) Government of Canada long bond yield	6.18%.	n/a	n/a	5.27%	4.02%	6.11%
3 month T-bill rate	4.78%	5.1%	5.2%	2.86%	1.73%	5.59%
1 year T-bill rate	5.65%	n/a	n/a	3.14%	1.97%	5.73%

Source: Bank of Canada, except * items, which are Consensus Economics' Consensus Forecast

Table 2 – Historical Yield Trends



Sources: Bank of Canada, RBC and 2000 EDRH

Appendix C

2006 Electricity Distribution Rates Handbook (EDRH)
Analysis of Debt Component

Prescribed 2006 EDRH – *Debt Rate*

The debt rate (DR) is based on the forecast of the long-term Canada bond rate and is based on April 2005 data. Added to this rate is a corporate spread of 60 basis points. Further added to these amounts is a premium related to the size of the utility, on a declining basis for utilities with rate bases of $1.0 billion or lower. This is shown in Table 3 below.

To determine the DR for a large rate base utility, the average forecasted 10-year Government of Canada bond rate of 4.75% (as in April 2005) was used and added to this was the 0.45% spread that existed between 10-year and 30-year Canada bonds in April 2005 and the 60 basis points corporate spread. The sum of this generated a 5.8% DR for the large rate base utility. On an increasing basis, a size premium was added up to 45 basis points to derive a 6.25% DR for the small rate base utility. Therefore, the total corporate spread is 60 basis points to 105 basis points, depending on the size of the rate base of the utility.

Table 3 – 2006 Deemed Common Equity and Debt Ratios and Debt Cost Rates

Size of Utility Rate Base	CER%	(1-CER)% or DR%	DR
Greater than $1 billion	35%	65%	5.80%
Between $250 million and $1 billion	40%	60%	5.90%
Between $100 million and $250 million	45%	55%	6.00%
Under $100 million	50%	50%	6.25%

Source: 2006 ERDH (May 2005)

Table 4 – Range of Benchmark Rates

Type of Treasury Security	Average of Actual April 2005 Rates	3 month Forecasted Rate in April 2005*	12 month Forecasted Rate in April 2005*	3 month Forecasted Rate in Feb 2006*	12 month Forecasted Rate in Feb 2006*
10 year Government of Canada bond yield	4.19%	4.6%	4.9%	4.3%	4.6%
Long term Government of Canada bond yield	4.64%	n/a	n/a	n/a	n/a
3 month T-bill rate	2.47%	2.6%	3.2%	3.9%	4.0%
1 year T-bill rate	2.84%	n/a	n/a	n/a	n/a

Source: Bank of Canada, except *, which are Consensus Economics' Consensus Forecast