October 30, 2009

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St., Suite 2700
Toronto, ON, M4P 1E4

Dear Ms. Walli:

RE: Cost of Capital in Current Economic and Financial Market Conditions
Board File No.: EB-2009-0084

Please find attached the submission of the Coalition of Large Distributors (the "CLD"), listed below, with respect to the above-captioned proceeding.

If you have any questions, please contact Paula Conboy at 905-532-4526.

Yours truly,

(Original signed on behalf of the CLD by)

Paula Conboy
Attach.

Gia M. DeJulio
Enersource Hydro Mississauga Inc.
(905) 283-4098
gdejulio@enersource.com

Indy Butany-DeSouza
Horizon Utilities Corporation
(905) 317-4765
indy.butany@horizonutilities.com

Lynne Anderson
Hydro Ottawa Limited
(613) 738-5499 X527
lynneanderson@hydroottawa.com

Paula Conboy
PowerStream Inc.
(905) 532-4526
paula.conboy@powerstream.ca

Colin McLorg
Toronto Hydro-Electric System Limited
(416) 542-2513
regulatoryaffairs@torontohydro.com

George Armstrong
Veridian Connections Inc.
(905) 427-9870 x2202
garmstrong@veridian.on.ca

Cc: George Vegh, McCarthy Tétrault LLP

Cost of Capital in Current Economic and Financial Market Conditions
Board File No.: EB-2009-0084

Submission by the Coalition of Large Distributors
October 26, 2009

Introduction and Context

These are the comments of the Coalition of Large Distributors (the "CLD"), in respect to the above-noted consultation. The CLD consists of Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc., Toronto Hydro-Electric System Limited, and Veridian Connections Inc.

The Ontario Energy Board's (the "Board" or the OEB") review of its approach to the Cost of Capital is timely; in fact, it is urgently required. Ontario's energy infrastructure requires renewal and expansion. The IPSP estimates a required $60 billion investment in the electricity system to the year 2027 (2007 CDN$). This figure does not include investment in the electricity or gas distribution systems. To put this figure in some context, the current rate regulated invested capital is approximately $30 billion.[1]

Ontario's infrastructure expansion and renewal is part of a broader continental and international demand for energy infrastructure investment. The Edison Electric Institute projects an infrastructure investment requirement of $900 billion by 2025 in the United States.[2] This is only a portion of the International Energy Agency's estimate of a required $26.3 trillion investment in energy infrastructure world wide by 2030.[3]

The OEB is the only provincial agency charged with the responsibility to ensure that Ontario will attract its share of rate regulated investment in a competitive global market. The result of this process will demonstrate the Board's appreciation of the challenge ahead of it, and the credibility of its approach to meeting that challenge.

The *status quo* is not a credible approach to meet that challenge. Simply put, Ontario has not kept up with competing jurisdictions when it comes to attracting new capital. Other jurisdictions, particularly in the United States, provide much more competitive returns and an investment environment marked by less regulatory risk than Ontario. American jurisdictions have been averaging approved returns in the range of between 11 and 12% as a baseline, with premiums for investments facilitating renewable power. As recently as April 10, 2009, the U.S. Federal Energy Regulatory Commission approved regulatory approval for the Green Power Express Transmission Project. This approval consisted of an approved ROE of 12.38 percent;

[1] Transcript, September 22, p. 106.
[2] David K. Owens, Executive Vice President, Edison Electric Institute, "30 Years of Energy Information and Analysis", April 7, 2008. http://www.eia.doe.gov/conf_pdfs/Monday/owens.pdf
[3] Nobuo Tanaka, Executive Director, International Energy Agency, "Meeting the Investment Challenge" March, 2009. http://www.iea.org/speech/2009/Tanaka/cera_week.pdf

recovery of development costs; 100% CWIP in rate base; and a deemed capital structure of 60% equity and 40% debt.[4]

The OEB's currently approved ROE of 8.01 for electric distributors that were rebased for the 2009 test year (with an equity thickness of 40%) is simply not competitive and will not succeed in attracting energy infrastructure investment to the province.

The OEB's approved ROE results from a formula created by the NEB; the NEB has now rejected that formula because it fails to take into account international competition for capital investment. The NEB expressed its views on this formula (initially determined in the 1994 Decision (RH-2-94)) in the TQM Decision as follows:[5]

> "*In the Board's view, one of the most significant changes since 1994 is the increased globalization of financial markets which translates into a higher level of competition for capital. When taken together, the Board is of the view that these changes cast doubt on some of the fundamentals underlying the RH-2-94 Formula as it relates to TQM.*"

More recently, the NEB confirmed that the formula should no longer apply to determine the rate of return for *any* regulated utility.[6]

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[4] FERC Order on Transmission Rate Incentives and Formula Rate Proposal (April 10, 2009). The materials and opinions on how American utilities are an appropriate proxy group are thoroughly canvassed in Concentric's Final Written Comments, and will not be repeated here. However, it is worth noting in this regard that Dr. Booth – the sole outlier on this issue - made no mention of the fact that American regulators have, in addition to granting higher rates of return than the OEB, have been using a number of alternative measures to remove regulatory risk in infrastructure investment. Some of these alternative mechanisms (including prior approval and recovery of CWIP in rate base, are described in the NRRI Report prepared by Scott Hempling and Scott H. Strauss, *Pre-Approval Commitments: When and Under What Conditions should Regulators Commit Ratepayer Dollars to Utility-Proposed Capital Projects* (November, 2008). See also: FERC Order No. 679. Dr. Booth's comments apparently did not take these developments into account when he asserted that, under American regulatory practice, "Expenditures [are] not pre-approved as they are in Canada" (See Dr. Booth's Slide Deck entitled "Cost of Capital").
In the same materials, Dr. Booth makes much of the fact that Ontario uses deferral accounts more than in the United States. However, reliance on deferral accounts is a source of risk. As the Board recently stated, "As the Board has articulated in numerous documents, the recording of costs in a Board approved deferral account is not a guarantee of recovery." (Hydro One 2009 and 2010 Transmission Revenue Requirement and Rates, Decision With Reasons (EB-2009-0272), at p. 59. This risk is increasing as the size of deferral accounts have been growing dramatically. For example, the total amount held in deferral accounts reflecting the cost of global adjustments has increased considerably between 2008-2009. By way of magnitude, balances in the GA variance accounts for CLD members have increased in the range of 125% to as much as 592% from December 31, 2008 to September 30, 2009. Collectively, the CLD members are holding $184 million as of September 30, 2009, a 236% increase since December 31, 2008.

[5] National Energy Board, Reasons for Decision, Trans Quebec & Maritimes Pipeline Inc. RH-1-2008 (March, 2009), at p. 16 (Emphasis Added).

[6] The NEB's Letter Decision on the review of RH-2-94 stated: "The Board notes that since 1994, there have been considerable changes in financial and economic circumstances. Based on these considerations, the Board is of the view that there is a doubt as to the ongoing correctness of the RH-2-94 Decision." Review of the Multi-Pipeline Cost of Capital Decision (RH-2-94), Letter Decision (October 8, 2009), at p. 2.

If the OEB continues to rely on its current approach, the province will be in the position of competing for international capital using an approach that has been rejected by its original creator *for the very reason that it fails to effectively take into account global competition for capital*. This is a tenuous position in which to leave the province.

The following submissions provide a prescription to prevent this situation. It is organized as follows. First, it addresses the policy framework for the Board's review. Second, it addresses what the Board can do in the short and long term to improve its approach to cost of capital.

In addition to these submissions, the CLD, along with Enbridge Gas Distribution and Hydro One have retained Concentric Energy Advisors ("Concentric") to provide the Board with its expert research and analysis on whether the Board's current approach continues to meet the fair return standard, and whether re-calibration and modification of the formula is warranted after a dozen years in operation. Concentric has provided Final Written Comments on this matter. These comments are supported and endorsed by the CLD; they are not repeated in these submissions.

1. Policy Framework

The CLD submits that the appropriate framework for this review was provided by the Chair in his closing statement. He emphasized that "it is essential that the Board's cost of capital policy has accurately as possible determined the opportunity cost of capital for monies invested in utility works, with the ultimate objective being facilitating efficient investment in the sector."[7]

The Chair's focus on opportunity costs of capital is helpful because it sheds light on two important issues for the policy framework for this process. First, it provides context for what is measured by the tests in the "fair return standard", and in particular, the capital attraction test. Second, it confirms that the Board's approach is to use tools of *economic efficiency* to meet capital requirements. This is important because it relates to the issue of whether public or private ownership is a relevant consideration.

Each of these points will be addressed in turn.

Capital Attraction and the Fair Return Standard

There are three main tests to determine whether the fair return standard is met: comparable investments; financial integrity and capital attraction. Each of these tests must be passed. The CLD submits that Concentric's Written Comments demonstrate that the Board's current approach fails to meet any of these tests.

These submissions focus on one component of the "fair return standard" i.e., the capital attraction test. As Bonbright observes, among the components of the fair

[7] Transcript, October 6, 2009, p. 154.

return standard, "a high place, perhaps even first place, must be given to that of capital-attracting efficiency."[8]

It is helpful to clarify what the standard of capital attraction comprises. This is necessary because some participants in this and other proceedings have tended to use the term "capital attraction" to have a different meaning than its conventional understanding. Specifically, the term "capital attraction" has been used to measure whether a utility is capable of meeting service quality and reliability obligations. This description of capital attraction can be called the "Mandatory Investment Test."[9]

A more conventional approach to capital attraction in regulatory economics looks not at the question of whether obligations can be met, but whether the rate is sufficient to attract capital on a long-term sustainable basis given the opportunity costs of capital. This can be called the "Opportunity Cost Test."

The CLD submits that the Board should not follow the Mandatory Investment Test. The problems with this test are well known. In an influential Report prepared by Karen Taylor and Michael McGowan, the authors noted that regulators have defended proposed ROEs on the grounds that utilities "are still investing in system assets." Ms. Taylor and Mr. McGowan acknowledged that this was true, but added the following observation:

> "Utilities will likely continue to invest in rate base despite an unsatisfactory ROE for a number of reasons: (1) requirement to be the supplier or supply of last resort and fulfil the obligation to serve; (2) maintain the safe and reliable operation of the utility; and (3) remain in compliance with a governing licence. *It should not be presumed that continued investment is an acquiescence that the allowed ROE adequately meets the fair return standard.*"[10]

Further, the fact that capital is available does not address whether its cost is accurately reflected in the Board's approved return on equity. In a functioning capital market, the demand for long-term capital and the supply of long-term capital will typically be in equilibrium. This does not necessarily imply that the equilibrium is on some hypothetical "optimal" frontier. It merely demonstrates that capital is available at a price. The issue in this review is to determine whether the price is appropriate.

Indeed, following the approach of the Mandatory Investment Test is not really applying the standard of capital attraction. To the contrary, setting a rate that is only sufficient to meet incremental capital investments necessary to meet obligations is a form of expropriation, namely, the expropriation of sunk assets. To use an

[8] Bonbright, Danielsen and Kamerschen, *Principles of Public Utility Rates* (1988), (Bonbright) at p. 203.
[9] See, for example, VECC's cross-examination of Concentric Energy Advisors, Transcript, Sept. 22, pp. 82-88)
[10] Karen Taylor and Michael McGowan, Pipelines & Utilities, "2007 ROE Preview – The Ugly get Uglier and is there Trouble Brewing in Ontario." BMO Capital Markets, June 27, 2006

extreme case to demonstrate the point, Holburn provides the example of where the regulator allows no return (as opposed to an inadequate return) on sunk assets:[11]

> "Expropriation of the firm's sunk assets, however, does not mean that the government takes over the operation of the company, but rather, that it sets operating conditions that just compensate for the firm's operating costs and the return on its non-specific assets. Such returns will provide sufficient ex-post incentives for the firm to operate, but not to invest."
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> ...
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> "The company will be willing to continue operating because its return from operating will exceed its return from shutting down and deploying its assets elsewhere. On the other hand, the firm will have little incentive to invest new capital as it will not be able to obtain a return."

The same principles apply in the case of an inadequate return. In either case, the fact that a utility continues to meet its regulatory obligations and is not driven to bankruptcy is not evidence that the capital attraction standard has been met. To the contrary, maintaining rates at a level that continues operation but is inadequate to attract new capital investment can be considered confiscatory. The capital attraction standard is universally held to be *higher than* a rate that is merely non-confiscatory. As the United States Supreme Court put it, "The mere fact that a rate is nonconfiscatory does not indicate that it must be deemed just and reasonable."[12]

The appropriate approach towards the capital attraction standard is the Opportunity Cost Test. As Bonbright observes, "most public utility companies, in order to render good service, must be able repeatedly to attract new capital from investors who are free to commit their funds to any alternative investments including the purchase of stocks in unregulated enterprises."[13] Thus, although a rate base is comprised of existing capital investments, the *return* on that capital bears on the fairness standard because "existing, captive investments are fairly compensated if permitted to receive whatever rates of return would currently induce free investments."[14]

The Opportunity Cost Test is also more relevant to the needs of the province, because it looks to whether the rate of return will be successful in attracting new capital investment for energy infrastructure in Ontario. This necessarily involves comparing Ontario's ROE to ROEs in competing jurisdictions with due consideration for environmental differences such as jurisdictional maturity, market participant size and liquidity risks, etc. The evidence is that, with consideration for jurisdictional differences and similarities, Ontario's ROE is considerably lower than other jurisdictions, and that difference is not accounted for by increased risk in other jurisdictions.

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[11] G. Holburn and P. Spiller, "Institutional or Structural: Lessons from International Electricity Sector Reforms" in *The Economics of Contracts: Theories and Applications* (Cambridge, 2002).
[12] *Banton v. Belt Line Ry. Corp.* 268 U.S. 413, 422-423, quoted in Charles Phillips, *The Regulation of Public Utilities* (1993), at p. 380.
[13] Bonbright, at p. 209.
[14] Bonbright, at p. 207.

To the contrary, empirical research demonstrates that Ontario is one of the riskiest jurisdictions in which to invest in energy infrastructure. Surveys of energy investors with experience in Ontario and other jurisdictions indicate that Ontario has relatively high regulatory risk resulting from ongoing political involvement in the electricity sector. In particular, one recent independent academic work conducted a survey of investors in the Ontario energy market to obtain their views of the relative regulatory risks of investing in Ontario as opposed to other jurisdictions. It came to the following conclusion:[15]

> "In contrast to operational and regulatory policy issues, the assessment of the regulatory governance regime in Ontario was considerably less favourable. The bottom-ranked three factors were all governance aspects. Each rated less favourably than other jurisdictions. Firms with experience in Ontario … further scored these dimensions lower than those without experience in the province …suggesting that perceptions of the regulatory environment may have deteriorated after physical investments or financial commitments have been made."

It should be noted that the survey addressed investment in renewable power. However, the revenues for renewable power contracts are guaranteed by the Ontario Power Authority in the sense that there is guaranteed recourse to the market for revenues. Thus, the risk profile of an OPA contract is not unlike the risk profile for investments in regulated infrastructure. It is also worth observing that the OPA's FIT program uses an assumed rate of return of 11-12%.[16]

The Relevance of Public Ownership

During the consultation, the Vice Chair, Ms. Nowina asked, whether it was appropriate that "government-owned utilities and investor-owned utilities should receive the same cost of equity capital."[17] This notion has been raised in other processes as well. For example, in its comments on the Staff Discussion Paper on the Regulatory Treatment of Infrastructure Investment, the CME and others suggested that the Board should not apply economic principles of public utility regulation where those principles were developed for utilities that are "privately owned companies which are not subject to Government direction to invest more capital."[18] The CLD appreciates this issue being raised so that it can be expressly addressed.

In the CLD's submission, discounting a rate of return entitlement for publicly owned utilities should not be entertained. Such an approach is unlawful, inconsistent with government policy, and uneconomic.

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[15] G. Holburn, K. Lui, and C. Morand, *Policy Risk and Private Investment in Wind Power: Survey Evidence from Ontario, (*University of Western Ontario, Monograph), September 8, 2009, p. 12.
[16] OPA Presentation on Proposed Feed In Tariff Program, Revised Rules, Draft Contract and Revised Price Schedule, May 12, 2009.
[17] Transcript, September 22, p. 29.
[18] CME Submissions in EB-2009-0152, July 7, 2009, p. 4.

With respect to legal entitlements, all rate regulated utilities are entitled to a fair return; this is an inherent component of a just and reasonable rate.[19] The Board is not granted the discretion to reduce that return based on the identity of the shareholder. This discretion would have to be expressly authorized in legislation.

As well as being inconsistent with legislation, such an approach would be inconsistent with government policy. The last time that the government formally addressed the returns available to publicly owned utilities was in the context of its June 7, 2000 Directive to the OEB. That Directive required the OEB, when setting rates, to "give primacy to the objective 'to protect the interests of consumers with respect to prices and the reliability and quality of electricity service." The Board addressed the impact of the Directive on distributors' entitlement to a commercial rate of return as follows:[20]

> "The Board does not interpret the Directive as a move away from the commercial orientation of municipally-owned utilities as set out in the White Paper and in the legislation. The Board does not view the Minister's Directive to mean that there should be no return on capital. Nor does the Board believe that the Directive instructs the Board to set rates that are not just and reasonable, and thus impair its role as a regulator.
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> On the contrary, the Board is of the view that in the new commercial setting, the best way to protect consumers with respect to prices, and the reliability and quality of service, is to facilitate the establishment and maintenance of a financially viable electricity distribution sector. *It is fundamental for a viable electricity distribution sector in a commercial setting to have opportunities for earning a market rate of return.*"

The CLD is not aware of any change in government policy that would authorize the Board to depart from its understanding of its role in setting just and reasonable rates for publicly owned utilities.

From an economic perspective, not including a commercial cost of capital in a utility rate is inefficient. Capital has a cost. If the Board does not attribute a cost to capital, or attributes less than its full cost, that cost is not eliminated, it is transferred to utility shareholders. Transferring this cost is inefficient because it distorts the comparability of economic trade-offs between capital resources (investments in generation, transmission and distribution) and between capital and operating expenditures. For this reason, even a governmental decision to make a "pure" publicly funded capital expenditure, such as a highway or bridge, is evaluated using an economic analysis that incorporates an imputed cost of capital.[21]

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[19] See, for example, *Northwestern Utilities Ltd. v. Edmonton (City)*, [1929] S.C.R. 186; *Re Union Gas Ltd. and Ontario Energy Board* (1983), 43 O.R. (2d) 489 (Div. Ct.); *British Columbia Electric Railway Co. v. Public Utilities Commission of British Columbia*, [1960] S.C.R. 837; and *TransCanada Pipelines Ltd. v. National Energy Board*, 2004 FCA, 149.

[20] RP-2000-0069, p. 9 (Decisions with Reasons, September 29, 2000)

[21] See for example, Treasury Board of Canada Secretariat, Canadian Cost Benefit Analysis Guide: Regulatory Proposals.

Finally, an approach that sets a rate of return based on the assumption that publicly owned entities do not require a profit to invest in infrastructure risks becoming a self-fulfilling prophecy. If the Board entertains such an approach, it is virtually *guaranteeing* that private investment will not come to Ontario. Again, as Holburn and Spiller point out, where a low rate of return results in expropriation of sunk costs, "private utilities will not undertake investments in the first place. Thus, government direct intervention may become the default mode of operation."

2. Short Term and Long Term Fixes to the Current Approach

The Board's current measure of the cost of capital is set out in its December 20, 2006 Report. The legal status of the Report is to provide some guidance on how the Board intends to approach the cost of capital. It was not produced on the basis of a formal hearing and is not binding on the Board. There is therefore no reason to grant it a privileged status such that it can only be adjusted or set aside on the basis of a full hearing. If the approach has flawed assumptions, and CLD submits that it does, then there is no reason for the Board to keep following it. Further, if on the basis of information provided by participants the Board is persuaded that there is a superior approach that results in a rate that is more just and reasonable, and the CLD submits that its proposed approach is far superior, then the Board should follow the superior approach.

The current approach is inadequate both with respect to the cost of debt and the cost of equity.

With respect to the cost of debt, long term debt is passed through at actual costs.[22] The short term debt rate is based on a technically flawed assumption. Specifically, short term debt is set at a deemed cost of a 90 day bankers acceptance rate plus 25 basis points. The same calculation is applied for variance and deferral accounts. The consequence is that the current approved rate under this formula is .55 percent. Distributors borrow short term rate at a rate which is three to five times that amount.[23] This demonstrates that the 25 basis point spread embedded in this rate is inappropriate.

A 25 basis point spread above the 90 day bankers' acceptance rate is a rate that is available to major finance company borrowers, not distributors. A way to remedy this technical deficiency would be for the Board to survey Schedule I banks for a more realistic spread to apply to LDCs.

With respect to the cost of equity, CLD's submission is that, in the short term, effective for the 2010 rate year and for annual adjustments thereafter, the Board should apply the results from Concentric's cost of capital study detailed at Part III of its Written Comments.

However, the Board should be careful that it does not only follow the results of any formula, including the formula proposed by the CLD. Avoiding this result involves two actions: first, regularly testing the outcome of any formula by reference to

[22] Transcript, October 6, p. 148.
[23] Transcript, October 6, pp. 147-149.

empirical data on the cost of capital; and second, allowing utilities to apply for a cost of capital on an evidentiary basis. Each will be addressed in turn.

With respect to the need for regular testing, it almost goes without saying that all formulas become dated and should be constantly re-evaluated to ensure that the information produced by that formula is the best information available to determine a just and reasonable rate. The CLD proposes that the Board adopt a methodology that allows for the systematic testing of the operation of the formula. This methodology allows the Board flexibility to depart from the formula when and if the formula leads to anomalous results.

The CLD submits that the tests proposed by Concentric and those proposed by Dr. Vander Weide are helpful in this regard.

Dr. Vander Weide suggested six tests that can be used to evaluate whether the Board approved rate of return meets the fair return standard. Each of these tests involve measuring the Board approved rate with empirical evidence of the real cost of capital. The evidence for each of these tests is as follows:[24]

> 1. Evidence on Experienced Equity Risk Premiums on Investments in Canadian Utility Stocks.
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> 2. Evidence on Recent Allowed Rates of Return on Equity for U.S. Utilities.
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> 3. Evidence on the Sensitivity of the Forward-looking Required Equity Risk Premium on Utility Stocks to Changes in Interest Rates.
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> 4. Evidence on the Sensitivity of the Allowed Equity Risk Premium for U.S. Utilities to Changes in Interest Rates.
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> 5. Evidence on the Relative Risk of Returns on Canadian Utility Stocks Compared to the Canadian Market Index.
>
> 6. Evidence on Whether the Board's ROE formula Produces Lower Results in a Period of Increased Risk and Uncertainty in the Economic and Capital Markets

The CLD proposes that the Board maintain clear and sufficient data that would allow the regular testing of any formulaic result by reference to these criteria and conduct regular testing of its results by reference to the criteria proposed by Concentric or by Dr. Vander Weide.

With respect to utility applications, there is no reason in law or practice why a utility cannot apply for an ROE based on its actual cost of capital. Although the CLD appreciates that the Board, for administrative purposes, would prefer to use a default formulaic approach, that approach should only be a default and not purport to be an actual determination of a utility's cost of capital. A utility should be able to apply for a cost of capital based on evidence. Such an application should not presumptively apply an ROE formula. Rather, the evaluation of an appropriate cost

[24] Appendix A to Responses to Questions Raised at Issues Discussion at Stakeholder Conference, James H. Vander Weide, Ph. D.

of capital should be based on the evidence provided and based on an appropriate cost of capital for a well run, efficient and economically sized utility.

Conclusion

This review has provided the Board with important information on how its current approach to the cost of capital is working in the real world. It is a world marked by unprecedented demand for energy infrastructure investment. Other jurisdictions have aggressively pursued this investment. The information provided in this review makes it clear that the current approach will not result in the Board successfully ensuring that capital investment is attracted to Ontario in an economically efficient manner.