BORDEN
LADNER
GERVAIS

By electronic filing and by e-mail

Borden Ladner Gervais LLP
Lawyers • Patent & Trade-mark Agents
World Exchange Plaza
100 Queen Street, Suite 1100
Ottawa ON K1P 1J9
tel.: (613) 237-5160 fax: (613) 230-8842
www.blgcanada.com

PETER C.P. THOMPSON, Q.C.
direct tel.: (613) 787-3528
e-mail: pthompson@blgcanada.com

June 2, 2010

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
27th floor
Toronto, ON M4P 1E4

Dear Ms Walli,

Transmission Project Development Planning Consultative
Board File No.: EB-2010-0059
Our File No.: 339583-000068

A. INTRODUCTION

The following comments are provided on behalf of Canadian Manufacturers & Exporters ("CME"). They pertain to Board Staff's April 19, 2010, Discussion Paper entitled "Transmission Project Development Planning". Throughout this letter, we refer to this document as the "Discussion Paper".

B. OVERVIEW OF DISCUSSION PAPER PROPOSALS

The proposals in the Discussion Paper pertain to the development of a process to facilitate the "timely" and "cost effective" development of major transmission facilities that will be required to connect renewable generation in Ontario.[1]

The Discussion Paper identifies some 11,500 MW of renewable generation reflected in:

(a) The Applications the Ontario Power Authority ("OPA") has received under its Feed-in Tariff ("FIT") program; and

(b) The Government's signed agreement with a consortium headed by Samsung.[2]

After noting that existing and approved transmission facilities in Ontario can accommodate only 4500 MW of this 11,500 MW of renewable generation, the Discussion Paper notes "that billions of dollars of transmission investment will be needed

[1] Discussion Paper, page 1
[2] Discussion Paper, page 1

to connect the balance of 7000 MW, as well as any other renewable generation that may come forward subsequently".[3]

The Discussion Paper notes that one of the objects of the OPA is to "conduct independent planning for electricity generation, demand management, conservation and transmission and to develop integrated power system plans". It is noted that the OPA will shortly begin an assessment of transmission investments that, "in its view", are required and economically justified to connect the FIT Applicants whose projects cannot be accommodated by existing transmission capacity. The OPA's assessment process is known as the Economic Connection Test ("ECT").[4]

Our understanding is that, at this stage, a detailed description of the OPA's ECT has not been published, nor has the ECT and its components been tested in a regulatory proceeding. The only place for Board Staff, representatives of consumers such as CME, and other interested parties to test the economic feasibility of the OPA's ECT and its outcomes is in a proceeding before the Board.

Despite the fact that the OPA is identifying specific projects on the basis of economic considerations, the Discussion Paper envisages that matters pertaining to the economic feasibility of these specific projects should not be considered now, but at a much later date at the hearing of Leave to Construct ("LTC") proceedings pertaining to these particular facilities.[5]

The Discussion Paper contemplates that regulatory approvals pertaining to the designation of transmitters to prepare development plans with respect to particular projects the OPA identifies in its ECT can be granted before it has been demonstrated, to the Board's satisfaction, that the specific projects to be identified by the OPA are economically feasible. Proceeding from the premise that all matters pertaining to the economic feasibility of the OPA's ECT and its outcomes can be determined later, the Discussion Paper recommends that the outcomes of the OPA's ECT be filed and accepted "without substantive examination" at this time.

The Discussion Paper goes on to outline a process and related filing requirements pertaining to the Board's eventual designation of a transmitter to prepare development plans for specific projects identified by the OPA that have never been demonstrated to be economically feasible in a public hearing before the Board.

For reasons that follow, we suggest that the proposal that the outcomes of the OPA's ECT be accepted "without substantive examination", at this time, is inappropriate and should not be endorsed. The Board, as an economic regulator, should consider itself to be obliged to conduct the substantive examination of the OPA's ECT and the economic feasibility of its outcome, before it grants any regulatory approvals pertaining to development work to be conducted by designated transmitters with respect to specific

[3] Discussion Paper, pages 1 and 2
[4] Discussion Paper, page 2
[5] Discussion Paper, page 7

projects identified by the OPA. The economic feasibility of the specific projects selected as the outcomes of the OPA's ECT should be established to the satisfaction of the economic regulator now, rather than later, and before any transmitter designations are made.

We suggest that critical components of the economic feasibility analysis that the Board should conduct include an objective evaluation of affordability using transparent affordability measurement tools that include:

(a) A sensitivity study of Ontario's economy to electricity price increases; and

(b) Multi-year forward-looking estimates of the "all in" electricity price increases that the transition to 11,500 MW of renewable energy resources to which the Discussion Paper refers is likely to cause.

C. ESSENTIAL EVIDENCE PERTAINING TO AN ECONOMIC FEASIBILITY EVALUATION OF THE SPECIFIC PROJECTS IDENTIFIED BY THE OPA'S ECT

At page 26, the Discussion Paper recognizes the OPA's responsibility to "support the characteristics, inputs, construction and application of its ECT". We suggest that additional evidence that is essential for testing the economic feasibility of the OPA's ECT and its outcomes on the public record includes the above described sensitivity study and periodic and end-state "all in" electricity price increases.

As far as we are aware, there is no study that indicates the sensitivity of the Ontario economy to either the periodic and end-state "all in" electricity prices that the connection of 11,500 MW of renewable generation described in the Discussion Paper is likely to cause, nor the number of years it would take for that end-state to be realized.

We further understand that, currently, there is no information being publicly provided by either the Ministry of Energy, the OPA, or any of the other Government owned entities engaged in the coordinated planning exercise that is essential to the transitioning of Ontario's integrated power system to renewable energy sources of the "all in" price impacts that these plans are likely to cause.

In order to estimate "all in" electricity price impacts that the addition of 11,500 MW of renewable generation is likely to cause, one must take into account the impact on current electricity prices of the following:

(a) Displacing lower cost supplies with a mix of supplies, the costs of which ranges between three (3) times and sixteen (16) times the average price of the source of supplies being displaced;

(b) The additional billions of dollars of transmission system expansion related to the connection of 11,500 MW of incremental renewable generation; and

(c) The billions of dollars of distribution system expansion that will accompany that transmission system expansion.

The information pertaining to the "all in" electricity price increases of which we are aware that is available from other sources pertaining to these matters includes the following:

(a) A Study released on April 30, 2009, by London Economics International LLC ("London Economics"), a firm that the Board has retained on a number of occasions for expert advice. This study indicates that the *Green Energy Act* ("*GEA*") initiatives could cost up to $46B over the next 15 years.[6] We suspect that now that the spending plans by large distribution utilities, including Hydro One Networks Inc. ("Hydro One"), and the transmission spending plans of Hydro One are more defined, these estimated costs have likely escalated. This is particularly so when one considers the measures recently adopted by the Board, including increases in the allowances for equity and debt returns, and the possibility that these utilities will be permitted to include Construction Work-in-Progress ("CWIP") in Rate Base. Further, the very high prices the OPA has agreed to pay for renewable energy under the auspices of long-term contracts are now a reality. We understand that the OPA has agreed to pay about 14¢/kWh for wind, about 40¢/kWh for large solar and some 80¢/kWh for small solar. These costs substantially exceed the costs of electricity supply they displace;

(b) An Argument dated February 5, 2010, that we filed on behalf of CME in the recent distribution rate case of Hydro One, in which we derived a very high level estimate on the basis of information then available indicating that the "all in" price of electricity could increase by at least 15% per year on average over the next five (5) years. This analysis was based on about 25% to 30% of Ontario's electricity needs being provided by renewable generation sources and the progressive connection of such generation sources over a period of between six (6) and seven (7) years;[7]

(c) A paper dated March 1, 2010, entitled "Taking a Deep Breath on Wind Power", a copy of which is attached. In this paper, Professor Michael Trebilcock refers to the very high fixed prices the OPA is agreeing to pay for solar and wind power under the auspices of long term contracts. Professor Trebilcock also cites recent studies in Denmark, Germany and the U.K. indicating that the costs impacts of renewable energy are not sustainable because it leaves companies paying higher rates than competitors in other jurisdictions; and

---

[6] See footnote 3 in CME Argument dated February 5, 2010; see Study by clicking on link below.
http://www.londoneconomics.com/pdfs/Potential%20cost%20implications%20of%20Green%20Energy%20Act%20-%20final%20version.pdf

[7] CME Argument dated February 5, 2010, in EB-2009-0096, at pages 17 to 32

(d) A study released by Aegent Energy Advisors towards the end of March 2010 estimating a 26% increase in the price of electricity by the end of 2011. This estimate did not include any incremental transmission or distribution rates increases.[8]

All of this information calls into question the "affordability" of the rapid attachment of 11,500 MW of renewable energy and the consequential displacement of far less costly electricity sources.

Recent speeches by the Chair and Vice-Chair of the Board recognize the importance of considering "affordability". In a speech to the Electricity Distributors Association ("EDA") Annual General Meeting on March 29, 2010, Board Chair, Mr. Wetston, stated:

> *"Finally, we are also thinking about the total bill and where it is going or, as Minister Duguid referred in his speech to the Ontario Energy Association on Wednesday last week, rate affordability. In an environment where all costs are increasing, we need to think about the various regulatory approaches to address the rate affordability issue."* (emphasis added)

In a speech to the Ontario Power Summit on May 6, 2010, Vice-Chair Chaplin stated:

> *"The GEA sets out a comprehensive approach to acquiring new renewable generation and enhancing and expanding the transmission and distribution networks. The costs of new generation and network investments will find their way into electricity prices and transmission and distribution rates.*
>
> *The Board is very aware of these impacts. We set the prices for electricity for customers under the Regulated Price Plan – and those prices are designed to recover the costs of generation. As many of you may be aware, the Global Adjustment Mechanism is a growing component of the electricity price. The Board also sets the rates for distribution and transmission, and those rates are designed to recover the costs of the investments which have been approved by the Board. The Board is aware of what this means for the customers' bills – and we are also concerned with the impact on customers – what Minister Duguid has referred to as rate affordability.* (emphasis added)
>
> *In an environment where costs are increasing, the Board may develop various approaches to address rate affordability. This is another area that demonstrates the importance of evaluative criteria."* (emphasis added)

We suggest that now is the time to determine the means that are to be applied to objectively measure rate affordability. The determination of this measurement tool should not be postponed any further.

---

[8] See Study by clicking on this link: http://www.aegent.ca/newsletters/BewareTheIceberg.html

Apart from the issue of affordability, we understand that the Independent Electricity System Operator ("IESO") is being challenged by the prevailing situation pertaining to the transition to renewable generation sources. Based on information provided by a representative of the IESO at an Energy Law Forum conference held on May 6, 2010, we understand that, as a result of the high fixed prices that the OPA has agreed to pay for wind and solar generation, and the Government's commitment to renewable generators that their output will be purchased, renewable generators will not turn off their facilities if their power is not needed. This refusal of renewable generators to turn off their systems produces very volatile base load requirements that are very difficult for the IESO to manage, and materially increase the costs of base load supply.

We understand that since base load nuclear cannot easily be turned off, wind and solar power being used yesterday but not available today prompts an immediate ramp-up of gas-fired generation which, compared to nuclear or hydro electricity generation, is very costly and, moreover, involves carbon dioxide emissions. On the other hand, when the IESO is long on wind and solar and all gas-fired peak generation plants are off, we understand that the only way to reduce base load is to have Ontario Power Generation Inc. ("OPG") spill water. OPG's Annual Report for 2009 indicates that very significant amounts of water were spilled in 2009. Millions and millions of dollars worth of hydro electric generation is being wasted. At a recent Shareholder Information Session held by OPG, we were informed that this situation is continuing in 2010 and is likely to get worse.

Based on the foregoing, it is apparent that the current situation is causing significant operational difficulties that will tend to reduce overall system reliability if the actions of renewable generators giving rise to the problems are not more rigorously controlled. At the same time, costs of supply are materially increasing because high cost solar and wind generation is displacing less costly supplies and prompting a material waste of hydro electric generation which is the cheapest and most environmentally friendly form of electricity generation. In our view, this outcome is economically imprudent in the extreme and indicates that the political forces prompting the rapid greening of Ontario's integrated power system have little, if any, appreciation for the inefficient, costly, and wasteful consequences of their actions.

All of this calls into question the conclusion upon which the Discussion Paper appears to be premised, namely, that the pace of expanding the integrated power system to accommodate renewable generation needs to be accelerated.[9]

In all of these circumstances, we suggest that it is neither "timely" nor "cost effective" to approve development planning for major transmission investment projects before the economic feasibility of those projects has been evaluated in a public forum, and before knowing whether the currently contemplated rapid pace at which the specific projects

[9] Discussion Paper, page 8, where using the outcomes of the OPA's ECT, without any prior examination of the economic feasibility of such outcomes, is characterized as an approach that will "speed up the project development process".

will be implemented is likely to produce periodic and end-state "all in" electricity price increases in amounts that will cause irreparable harm to the Ontario economy.

In a speech to the Ontario Energy Association ("OEA") on May 13, 2010, Board Chair, Mr. Wetston, described the five (5) essential building blocks of the Board's regulatory framework and stated:

> *"This framework reflects the Board's awareness of the expectations that the government has set for the industry. It also ensures that the activities undertaken to fulfill those expectations are prudent, cost effective, and economically efficient."* (emphasis added)

In concluding his remarks, Mr. Wetston emphasized that the regulatory compact is important from the point of view of the ratepayer. He stated:

> *"The regulatory compact plays an important role in fostering ratepayer confidence. It does this by providing a mechanism through which each rate regulated entity can be held accountable for its performance in the delivery of monopoly services. And with that confidence comes greater public acceptance of regulatory outcomes."* (emphasis added)

We suggest that without an objective evaluation now, rather than later, of the OPA's ECT and the affordability and economic feasibility of its outcomes, it is neither "timely", nor "cost effective" to approve development planning for major transmission investment projects at a pace that produces periodic and end-state "all in" electricity price increases in amounts that are likely to cause irreparable harm to the Ontario economy. Ratepayers have no confidence in a process that is intended to facilitate the "timely" and "cost effective" development of major incremental transmission facilities costing billions of dollars when that process is being proposed without any awareness of the "all in" electricity price impacts that the addition of the 11,500 MW of renewable generation are likely to cause, and the ability of the Ontario economy to tolerate price increases of this magnitude.

Under the regulatory approach the Board has traditionally applied to specific system enhancement and expansion projects, the onus is on an applicant seeking any regulatory approvals to satisfy the Board that the specific projects are economically feasible. The Board should continue to evaluate economic feasibility before it grants any regulatory approvals pertaining to incremental facilities. It should not matter that development planning is a stage leading up to, but separate and apart from, construction.[10] Matters pertaining to economic feasibility are fundamentally "front-end" issues. They should not be deferred to a post-development stage of the facilities development/construction process. The act of deferring matters pertaining to economic feasibility to a post-development phase of the process, in and of itself, tends to imply that the project is economically feasible.

[10] Discussion Paper, page 1

Without a prior demonstration by the OPA, at a public hearing, that the outcomes of applying its ECT are economically feasible, there is no evidentiary basis for the Board to conclude that the specific projects identified by the OPA are deserving of any regulatory approvals. We suggest that it is illogical for the Board to grant regulatory approvals for development work, including consultation, route planning, engineering, and site development studies with respect to specific projects identified by the OPA when matters pertaining to the economic feasibility of the specific projects are unknown. Such approvals, if granted, could lead to material waste in that they could result in millions and millions of dollars being spent by transmitters on development plans for specific projects that may never satisfy the criteria the Board traditionally applies to evaluate economic feasibility.

For all of these reasons, we suggest that the proposal in the Discussion Paper to accept the OPA's identification of specific projects without conducting any substantive examination of their economic feasibility, at this time, is inappropriate.

D. CME'S COMMENTS ON TOPICS LISTED IN SECTIONS 3 AND 4 OF THE DISCUSSION PAPER

Because of our inability to complete these comments before the initial filing deadline date of May 31, 2010, we have had an opportunity to peruse the detailed comments made by other ratepayer representatives such as the Association of Major Power Consumers in Ontario ("AMPCO"), London Property Management Association ("LPMA") and Vulnerable Energy Consumers Coalition ("VECC") on the proposals contained in Sections 3 and 4 of the Discussion Paper. Our comments on these Sections of the Discussion Paper are primarily conceptual and have been prepared in an attempt to avoid duplicating points made by the other ratepayer representatives in their detailed submissions.

3. A Proposed Framework for the Development of Enabler Facilities and Network Expansion Projects

3.1 Process to Designate a Transmitter

Identification of facilities requiring designation

For the reasons already outlined, the Discussion Paper's proposal to defer the substantive examination of the features of the OPA's ECT and the economic feasibility of its outcomes to the Hearing of LTC applications pertaining to specific projects is inappropriate. A substantive examination of the OPA's ECT and economic feasibility of its outcomes should be regarded as the item of highest priority.

Evidence supporting the characteristics, inputs, construction and application of the ECT must be available. It is inconceivable that the OPA would adopt and

apply an ECT without there first having been an objective demonstration to its senior management that it produces outcomes that are economically feasible. Accordingly, we can see no reason why the OPA cannot file evidence to demonstrate that the outcomes of its ECT are economically feasible at the same time that it reports on those outcomes. We suggest that the Board should require the OPA to provide that evidence when it files the report envisaged in the Discussion Paper.

We recognize that considering matters pertaining to the economic feasibility of the ECT and its outcomes now, rather than later, will likely decelerate, rather than accelerate, the pace at which regulatory approvals pertaining to the connection of renewable generation resources can be obtained. In this connection, we understand from the Discussion Paper that there is sufficient transmission structure in place or already approved to accommodate 4500 MW of renewable generation, leaving an incremental of 7000 MW of generation without transmission facilities having the requisite regulatory approvals pertaining to their development and/or construction.

We view the deceleration impacts of our suggestions to be a positive, rather than a negative outcome in that slowing the pace of the transition to renewable generation resources will provide the Board and other stakeholders with a sufficient opportunity to evaluate the affordability of the attachment of renewable generation resources currently totalling 11,500 MW. The critical information on affordability is needed now in order to avoid blindly rushing into an outcome of the type that, according to Professor Trebilcock, has occurred in Denmark, Germany and the U.K. where the cost impacts of renewable energy are not sustainable because they leave companies paying higher rates than competitors in other jurisdictions.[11]

Having regard to the results in those jurisdictions, the Board should not hesitate to adopt measures, including those we suggest, to assure that the greening of Ontario's integrated power system proceeds at a pace that avoids irreparable economic harm.

Notice and Direction to File

Under the process we urge the Board to adopt, the item of priority is the substantive examination of the OPA's ECT and the economic feasibility of its outcomes.

As long as this substantive examination remains the item of priority, then the economic feasibility of the specific projects the OPA identifies will be determined in advance of the commencement of the transmitter designation process in the manner proposed in the Discussion Paper.

[11] See attached Trebilcock Paper at page 2

Once the Board is satisfied that some, or all, of the specific projects identified by the OPA are economically feasible, then the process Staff envisages to initiate requests for transmitter designation appears to be reasonable.

Requirement to be Licensed

As AMPCO, LPMA and VECC have noted, the "qualification" requirements of the process should not operate as an unreasonable barrier to participation. We agree with these parties that a licensing requirement is probably not necessary to achieve this objective. Some less expensive form of pre-qualification is probably more appropriate.

When to File

We agree with the comments of other ratepayer representatives to the effect that the time needed to prepare transmission project plans is likely to vary, depending on the size of the specific project(s) under consideration. In these circumstances, whatever timing standard is adopted needs to be flexible.

Decision Criteria and Process

Having regard to our view that a transmitter designation cannot be made without a prior determination that the specific project is economically feasible, there are two (2) scenarios to be addressed when considering the appropriate Decision Criteria.

The first is the scenario we advocate where the substantive examination of the OPA's ECT and the economic feasibility of its outcomes precedes the consideration of the regulatory designation of transmitters to develop plans for incremental facilities identified by the OPA in its ECT. In this scenario, the Decision Criteria described in the Discussion Paper appear to be reasonable, subject to the comments we make below pertaining to the contingency that materially low budgets of costs may be contained in the proposed plan.

In the second scenario, a substantive examination of the ECT and the economic feasibility of its outcomes is not conducted prior to the initiation of a transmitter designation application. If this scenario applies at the conclusion of this consultation, then we agree with the comment made by VECC at page 8 of its submission to the effect that the appropriateness of the OPA's ECT, including the economic feasibility of its outcomes, will need to be substantively examined as a part of the first proceeding dealing with the designation of transmitters for the purpose of a specific project development. In this scenario, the onus will be on the transmitter seeking permission to proceed with development work to establish the economic feasibility of the particular project that forms the subject matter of the application. A determination of the economic feasibility of the specific project(s) that forms the subject matter of a transmitter designation application is an essential pre-requisite to the granting of the regulatory approval being requested.

In this scenario, the Decision Criteria and Process, including Filing Requirements, will need to include the criteria that the Board applies to evaluate economic feasibility, including need and affordability.

For reasons we have already articulated, we believe that a far more efficient way of proceeding is to establish a process for conducting a substantive examination of the OPA's ECT and the economic feasibility of its outcomes as a precursor to the consideration of transmission designation applications pertaining to specific projects identified by the OPA in its ECT.

In applying the "Costs" criterion to which the Discussion Paper refers at page 12, the contingency that budget estimates in a development plan might be materially understated by applicants, in the belief that the level of those budgets could influence their selection as the designated transmitter, needs to be considered.

Measures to assure that costs reflected in the estimated budgets submitted by applicants for designation are realistic should be considered and addressed as part of the Decision Criteria and Process topic.

We believe that one way of discouraging "low ball" budgeting for the purposes of achieving transmitter designation is to emphasize that others will be free to submit competing applications to construct the proposed facilities at the LTC phase of the process. Where material upward revisions to budgeted costs are made at the LTC phase of the process, the Board could either invite competitive third party applications and/or emphasize that designated transmitters are exposed to disallowances of costs to construct that materially exceed the budgets presented when they obtained their designated transmitter status.

Implications of Plan Approval

We agree that where the project identified by the OPA has been demonstrated to be economically feasible, then costs prudently incurred by the designated transmitter within the budget will be recoverable through rates.

In the scenario where a transmitter designation is granted before the project has been established to be economically feasible, the recoverability of transmission project development plan costs by the designated transmitter should depend upon the outcome of the economic feasibility assessment that eventually takes place. In this scenario, the concepts adopted by the Board in its EB-2009-0416 Decision and Order dated March 25, 2010, should apply. In that Decision, the Board cautioned its approval permitting Hydro One to proceed with certain planning activities in the following terms:

> *"Hydro One is cautioned that this approval does not provide any assurance, either explicit or implicit, that the amounts recorded in the account will be recovered from ratepayers. No finding of prudence is being made at this time. Hydro One has identified a list of projects, but the level of costs, the timing, and the need for the expenditures has not*

> *been sufficiently justified in this proceeding to make any conclusion as to the prudence of these expenditures.*
>
> . . .
>
> *A full test of prudence will be undertaken when Hydro One applies for disposition of the account. The Board finds merit in highlighting the considerations identified by VECC and CME and expects that those issues, among others, will be addressed at the time of disposition. Hydro One will have the opportunity to demonstrate the relevance or lack thereof of the considerations identified by VECC and CME at that time."*

The considerations identified by CME in that proceeding included the principle the Board paraphrases at page 4 of the Decision and Order as follows:

> *"CME emphasized that project specific costs should be recovered from ratepayers only if and when the capital costs of the projects are allowed into rate base as a result of a determination by the Board that the projects are economically feasible, as well as used and useful."*

The eligibility of a designated transmitter for advance funding should be considered on a case-by-case basis.

Designating Multiple Transmitters

The concept of maintaining some continuing competition, beyond a determination of competing transmitter designation applications, by a Board designation of multiple transmitters appears to us to be duplicative. As a general rule, designating multiple transmitters is an outcome that should be avoided.

Instead, the designated transmitter should be reminded that it is obliged to identify "Alternatives" and "Alternative Means" in its development plans and that, to prompt competition, the Board may invite third parties to submit competing applications at the LTC phase of the process.

If the objective is to stimulate further competition after the transmitter designation phase of the process has been completed, then we believe that the better way to prompt such competition is to invite third parties to submit LTC applications that are more cost-effective than the LTC application proposed by the designated transmitter.

3.2 Hearing for Leave to Construct

As already noted, the LTC hearing is not the time for the OPA to objectively support the ECT and to demonstrate economic feasibility of the projects it identifies. That objective analysis should take place now.

3.3 Hearing for Rate Recovery

Where the economic feasibility of the identified project is demonstrated at the outset, then development costs should be recoverable in rates. Where economic feasibility is not established at the outset, then development costs should not be recoverable in rates until it has been demonstrated that the project is economically feasible.

4. Proposed Filing Requirements

If the Board agrees with CME that the substantive examination of the OPA's ECT and the economic feasibility of its outcomes should precede the determination of any transmitter designation applications, then the Proposed Filing Requirements will need to be modified to direct the OPA to file the information the Board will require to perform that economic feasibility evaluation. The OPA should be directed to file the requisite information as soon as it has completed its report identifying the specific projects that satisfy its ECT.

For the reasons already outlined, matters pertaining to the economic feasibility of the OPA's ECT and its outcomes will need to be addressed in conjunction with the first proceeding dealing with the designation of transmitters for the purpose of project development. The revisions to the Filing Requirements we are suggesting, to include matters pertaining to the economic feasibility of the OPA's ECT and its outcomes, are appropriate even if this second scenario materializes. A determination of the economic feasibility of the specific project(s) that forms the subject matter of a transmitter designation application is an essential pre-requisite to the granting of the regulatory approval being requested.

Appendix A of Discussion Paper

We note that Appendix A contains no analysis of the situations in Denmark, Germany and the U.K., being the jurisdictions in Europe that, according to Professor Trebilcock, have found the transition to renewable generation sources to be unsustainable. The approaches taken in these European jurisdictions should be studied so that we can avoid any mistakes made in those jurisdictions that lead to such results.

E. Conclusion and Costs

We appreciate being afforded the opportunity to participate in this Consultation and hope that these comments will help the Board understand CME's concerns. We greatly appreciate the 2-day extension of time beyond May 31, 2010, that was provided to enable us to submit these comments.

We request that CME be awarded 100% of its reasonably incurred costs of participating in this matter.

Yours very truly,

Peter C.P. Thompson, Q.C.

PCT\slc
enclosure
c. Paul Clipsham (CME)

OTT01\4060911\1

March 1, 2010

TAKING A DEEP BREATH ON WIND POWER

Michael Trebilcock

The current Ontario government's headlong rush into massive subsidization of various forms of renewable energy, including wind power and solar energy, is likely to reveal the law of unintended consequences from these precipitous policies unless we take a deep breath and calmly and rigorously re-evaluate these policies before committing billions more dollars from consumers and taxpayers to them.

Such a re-evaluation would sharply focus on three key factors: a) the costs of renewable energy; b) its contributions to reducing CO2 (greenhouse gas) emissions; and c) its contributions to creating jobs in the province. Much of the current government's renewable energy focus has been on the promotion of industrial wind turbine-generated electricity, and hence I focus on these three factors as they relate to industrial wind power.

a) Economic Effects

First, as to the cost of wind-generated electricity, the feed-in tariff for on-shore wind turbines in Ontario provided for under the *Green Energy Act* is 13.5 cents per kWh (and higher for smaller projects), which is more than twice prevailing rates for electricity on the spot market in Ontario (less than 6 cents per KWh). Solar power qualifies for an 80 cents per KWh feed-in tariff. These cost increases will be fed through to industrial, commercial, and residential consumers through various additional charges on their electricity bills. In addition, further expenditures are required in order to enhance and extend the transmission grid to accommodate these projects. A recent study by London Economics Consultancy, "Examining the Potential Costs of the *Ontario Green Energy Act 2009* (April 30, 2009), estimates that the higher costs of

green power will add hundreds of dollars to average electricity bills of households throughout Ontario. A recent article in the *Globe and Mail*, "The High Cost of Green Power," January 8, 2010, quotes Adam White, President of the Association of Major Power Consumers of Ontario, as stating: "The situation is not sustainable because it will leave companies paying higher rates than competitors in other jurisdictions." Toronto energy lawyer, Peter Murphy, is quoted as stating: "The government is sitting on a political time bomb." Recent studies of wind power in Denmark,[1] Germany,[2] and the UK,[3] reach similar conclusion about the impacts of renewable energy on electricity costs in these three jurisdictions. The Ontario government's estimate of an increase in electricity costs per year from its renewable policies of 1 percent a year seems to lack any justification or credibility.

b) Environmental Effects

The contributions of industrial wind power to reducing CO2 (greenhouse gas) emissions, which might be thought to justify the additional cost of renewable energy, are in fact at best marginal. Most wind turbines run at only about 25 percent of nameplate capacity, so that generating any substantial amount of electricity from wind power requires massive numbers of wind turbines. In addition, because of their intermittency and unpredictability (like solar power), they require the availability of back-up generation, especially for peak-load capacity, which has entailed in Denmark, Germany, the UK, and now Ontario the construction of additional fossil fuel plants (typically natural gas plants) to provide reliability. This dramatically reduces the net contributions of wind power to CO2 abatement, which come at an extremely high cost relative to

[1] Centre for Policy Studies (CEPOS), *Wind Energy: The Case of Denmark*, Copenhagen, Denmark, September 2009.
[2] Christoph M. Schmidt, *Economic Impacts from the Promotion of Energies: The German Experience* (RWI, Essen, Germany, 2009).
[3] John Etherington, *The Wind Farm Scam: An Ecologist's Evaluation* (Stacey International, 2009), chapter 4.

other abatement strategies (such as real-time pricing of electricity).[4] In the case of base load electricity, most of this is provided in Ontario by carbon-clean hydro and nuclear power so that, to the extent that wind power is used to provide base load electricity, it simply displaces lower cost hydro and nuclear power with no effects on CO2 emissions (or results in exports of surplus power, often at give-away prices).

In October 2007, the Ontario Power Authority (OPA) – the government's own agency, tasked with planning Ontario's power system and now entering into long-term contracts with renewable energy producers – published its Integrated Power System Plan, where it analyzed a "high wind power" scenario for the province, and concluded: "Since wind generation has an effective capacity of 20 percent compared to 73 percent for hydroelectric generation, additional generation capacity with better load-following characteristics would need to be installed. This needed capacity will likely have to be obtained by installing additional gas fired generation. Thus, in addition to incurring further capital costs for the gas generation installation, higher gas usage would be expected to make up for the reduced amount of renewable energy from wind compared to that from hydroelectric generation or this alternative. Therefore, this alternative would result in higher greenhouse gas emissions." The OPA concluded: "Wind and solar power will never be more than a niche supplier of power in Ontario."

What did the OPA see as the better alternative? Renewable hydro power sites in northern Ontario (which it identified). The OPA stated: "The hydroelectric generation developments included in the plan are cost effective compared to developing additional wind generation; this comparison includes the cost of transmission reinforcements. In conclusion, development of major hydroelectric generation north of Sudbury, with major reinforcement of the transmission

[4] Donald Dewees, "The Price Isn't Right: The Need for Reform in Consumer Electricity Pricing," C.D. Howe Institute Backgrounder, No. 124, January 2010.

north of Sudbury, is the preferred alternative compared to developing additional renewable generation in southern Ontario and other parts of northern Ontario."

This begs the obvious question, what has changed in two years? Beyond these sites in northern Ontario, in the medium to longer term there is enough northern Canadian hydro power in Manitoba, Quebec and Labrador to satisfy Ontario's needs for decades. If Boston and New England can depend on northern Canadian hydro power, why not Toronto? Moreover, prior demand projections for electricity need to be revised downwards to reflect not only the current economic recession (demand was down more than 6% in 2009 over 2008), but the long-term contraction in a number of Ontario's electricity-intensive heavy manufacturing industries, such as steel and automobile manufacturing.

c) Employment Effects

The potential contributions of renewable energy to the creation of jobs in the province require a heavy dose of skepticism. While the government has claimed that it plans to create 50,000 new green jobs in the province over the coming years, the additional burdens on industrial, commercial, and household consumers from higher electricity costs associated with renewable energy will kill existing jobs. Recent studies in Denmark and Germany find that very few net new jobs have been created as a result of renewable energy policies, and in the case of Denmark, have cost between US $90,000 to US $140,000 per job per year in public subsidies, and in the case of Germany, up to US $240,000 per job per year. According to a column by Randall Denley in the Ottawa Citizen of January 24, 2010, the new manufacturing jobs entailed in the massive Samsung renewable project recently announced by the Ontario government will cost $300,000 each in public subsidies.

In an SNL Financial news wire report of October 23, 2009, the Ontario Minister of Natural Resources was reported as stating that the agency had temporarily stopped accepting applications for proposed wind energy projects because it had already received 500 such applications and needed to make sure that it had appropriate processes in place before taking any more. Obviously, the massive public subsidies being offered by the Ontario government to the renewable energy sector, especially industrial wind turbines, have provoked a massive corporate feeding frenzy, but corporate enthusiasm for subsidized wind power should not be confused with the longer-term public interest. On all three of the critical factors reviewed above, wind power attracts a failing grade. Beyond these three factors, localized impacts on flora and fauna and on the character of some of Ontario's most beautiful rural communities, potentially adverse health effects on local residents from persistent exposure to low intensity turbine noise, and potentially adverse impacts on local property values and an environmental review process which the Ontario Environmental Commissioner describes as "broken,"[5] render renewable energy policy, at least as currently conceived by the Ontario government, one of the least compelling public policy options in the challenging economic environment in which the province finds itself now and for the foreseeable future.

Picking technological winners in fields such as this, and then picking winners within classes of technology (such as Samsung) are fraught with the risk of costly errors. A far better policy orientation would be first to price all sources of electricity so as to reflect environmental costs and let consumers respond accordingly, and then to subsidize breakthrough R and D in all sectors that are significant sources of carbon emissions. As Dr. Jan Carr, former CEO of the OPA from 2005 to 2008, puts it in a recent article:[6]

---

[5] Gord Miller, Annual Report, 2007-2008.
[6] Jan Carr, "A Rational Framework for Electricity Policy," (2010) *Journal of Policy Engagement* 8.

> The recent rush to "green" Ontario's electricity system has produced a largely *ad hoc* approach to the selection and investment in power generation technologies that will unnecessarily increase the cost of electricity with far-reaching economic and social effects... Pricing carbon would have the advantage of continuing a century of economically rational development of the electricity system as an essential underpinning of modern society. To do other than proceed on an economic basis is to risk massive economic distortions... The alternative process of picking winners and losers in renewable energy technologies, based on perceptions and public opinion polls, puts us all at considerable risk."

Before mortgaging its long-term future by awarding hundreds more 20-year fixed-price contracts to wind developers, the province of Ontario urgently needs an independent, objective, expert investigation (perhaps by the Auditor-General) of the prospective economic, environmental, and employment effects of wind power and other renewable energy policies in the province and alternatives thereto.