

Manitoba Wildlands Comments –
The Clean Energy Transfer –
Preliminary Assessment of the Potential for a Clean Energy Transfer
Between Manitoba and Ontario (September 2004)

Summary

The preliminary report on the feasibility of the Clean Energy Transfer Initiative (the ‘CETI report’) is 38 pages long and includes an Executive Summary, the main body of the report (divided into seven sections), a section on Conclusions and Recommendations, a section on Next Steps, and a 6-page Glossary.

The CETI report points to benefits from the sale and delivery of hydroelectric power to Ontario related to energy supply and demand, upgraded transmission facilities, contributions to clean energy supplies and reliability, greenhouse gas (GHG) reductions, generation of revenue and tax revenue, employment, training, and employment and business opportunities for Aboriginal citizens and businesses.

Challenges (or issues not regarded as benefits) noted in the CETI report include delays due to economic and environmental regulatory approvals, cost of power compared to other alternatives, consultations with Aboriginal communities, and the potential role of the federal government.

The main recommendation is that necessary steps be taken to move the “project” to the next steps. Specific next steps for each of the agencies/organizations involved are listed.

Comments

Manitoba Wildlands has two overarching comments regarding the CETI report. The first is that the recommendation to proceed with the necessary steps to move the project forward on the basis of the information in the CETI report is flawed. In general, little effort has been made to substantiate statements in the report, making it impossible to make decisions about next steps with confidence. This report appears to be a summary of the actual technical and engineering study undertaken since the Premiers of Ontario and Manitoba signed an MOU. (To download a copy of the MOU, visit http://manitobawildlands.org/docs/Ont_MB_Hydro_MOU.doc)

In addition, regarding the options for transmission of energy from Manitoba to Ontario, the report falsely purports to be unbiased. The report states that no decisions have been made, yet a clear argument is made for one of the Options presented (the Winnipeg Option) in the National Grid - Energy Reliability and Security section of the CETI report.

In addition, Manitoba Hydro’s policy to not share corridors and to have a separate Bi Pole corridor for each new generation station is left out of the report. It is potentially confusing to talk about one transmission decision at a time, while avoiding any discussion of the potential cumulative impacts from several transmission corridors, and dams.

Comments regarding specific sections of the CETI report are provided below.

Rationale Section

It is puzzling that the weak east-west grid is listed in the Rationale section of the report and discussed as a rationale for the CETI. One would expect that this weakness would in fact be a challenge, or at best be a positive by-product of achieving the stated goal(s) of the CETI. Or, to properly frame the issue as part of the rationale for the CETI, one could argue that the improvement of east-west grid capacity is already a goal of both governments, and the CETI would accomplish this as an added benefit. The issue is not described in these terms.

The Rationale section of the CETI report (pg. 6-11) indicates several benefits to increased inter-provincial transmission capacity for both provinces as well as nationally – reliability, efficient use of energy, enhanced national security, meeting Kyoto requirements and clean air targets, benefits to Aboriginal communities, predictable and affordable prices, increased access to market for emerging renewables, and increased supply to Canadian consumers. Yet, the last “benefit” listed above – “increased supply to Canadian consumers” – betrays the bias of the authors. Increased supply, without clear inclusion of energy efficiency and conservation options – is simply a stated bias. No demand side management benefits or environmental impacts are mentioned.

Environmental Benefits

In the Environmental Benefits section (*Greenhouse Gas and Other Air Emission Reductions*), the report indicates that if the CETI replaces coal-fired production, it would reduce GHGs and other air pollutants by at least 7 Mt per year.

It is unclear whether the soft language (use of “if” and not “will”) is used because the project is still a ‘potential’ project, or whether this is ‘weasel language’ in the event that Ontario doesn’t actually retire any coal and this project simply addresses growth in demand. This also raises questions about how certain these assertions are – i.e. can the authors really determine whether coal will be displaced? There is no quantitative analysis to support this assertion. There is no supporting documentation, or at the very least, references for the assertion of a 7 Mt per year GHG reduction. Reductions in SO_x, NO_x, mercury and particulates are also alluded to, however, no specifics are provided, and no supporting information or references are indicated.

Page 12 of the CETI report states,

The undiscounted total environmental benefits flowing from the CETI are estimated at \$3.5 to \$5.9 billion. Discounted (at 6% and 10%), the GHG reductions alone which arise from the displacement of coal by the CETI are estimated to have a net present value of \$500 million to \$1.8 billion over the period 2005 to 2030. Adding the SO_x, NO_x and mercury reductions would increase the total net present value of the environmental benefits to \$700 million to \$2.2 billion, using 6% and 10% discount rates (Figure 4).

No references or sources are provided to support these numbers. There is no indication or understanding that all calculations re: Kyoto benefits will need to be public, and show both emissions and reductions, both impacts and benefits. Nor is there any acknowledgement of or value put to environmental impacts from the project.

On page 13, there is a short paragraph about estimating benefits of GHG reduction. Some assumptions are stated, and the report indicates that two price scenarios were created for the value per tonne of GHG. Once again, no justification or sources for these assumptions, price scenarios, etc. is provided.

On page 15, the fact that ‘new generation hydro’ is designed to minimize flooding and function as ‘run of the river’ is also touted as an environmental benefit. Wuskwatim is used as an example, and the low impacts of Gull and Conawapa are also mentioned.

Minimization of flooding is an element of proper, socially and environmentally appropriate design, not an environmental benefit. The implication is that somehow the public should be grateful that this option is being chosen. Meanwhile, the only reason that this is occurring is because of pressure and the desire for social license. In addition, the assertion that Gull is a low impact project is misleading, given the level of flooding in recent design information regarding Gull.

It should be noted that treatment of Kyoto as an end objective is flawed planning. Kyoto objectives are just the beginning of the actions needed to combat effects of climate change. Manitoba’s climate change action plan – and this report – both focus on GHG trade offs, and avoid analysis of climate change impacts from hydro projects and the CETI. Carbon neutral projects and reduction of emissions throughout Manitoba industry, the public sector, and civil society need to be the context for any ‘Clean Energy Transfer’.

Approvals Process

On page 16 in the Environmental Benefits section, the approvals process for hydro is characterized as “complex, time-consuming, and costly”, in comparison with for instance coal or gas-fired projects. (Wuskwatim is cited as an example)

This is a dangerous assertion because it is completely unsubstantiated and is stated as if it is self evident. To get at the real issue, one has to ask: When was a coal or natural gas-fired project last subject to a licensing process in Manitoba? The real issue here is not the type of project but the fact that environmental assessment (EA) is becoming more rigorous and catching up with the public’s values and desire to be environmentally thorough and carefully consider the ecological implications of new development.

Aside from the issue of whether today’s EA processes should be characterized as lengthy and complex, much of the delay and timeline that occurred in the Wuskwatim projects review/hearings etc. can be attributed to the full year delay after EIS guidelines were set. This delay was a combination, presumably, of Manitoba Hydro’s and the Manitoba government’s priorities. The EIS was not filed until after Manitoba election date was set

and no action regarding the Wuskwatim projects occurred prior to the 2003 provincial election.

Also pertinent to the so-called delays in EA is the fact that Manitoba is not upholding its responsibilities for cooperative EA where there are significant federal responsibilities. Manitoba is also not maintaining high enough review and assessment standards when government is the developer. These actions or omissions then cause a dramatic increase in public concern, number of intervenors etc. Finally, it was the Manitoba government that made the decision to combine the Public Utilities Board with the Clean Environment Commission process and hearings regarding Wuskwatim.

As a result, the report goes on to state (pg. 17 – emphasis added),

*While **initiatives are underway to further streamline these multiple regulatory approval processes**, it is unclear whether and how one EA could meet the requirements of all three jurisdictions. At present, even with the harmonization of the federal and provincial processes, the full process of performing the EA studies, preparing and submitting the project Environmental Impact Statement, plus the regulatory approvals processes themselves may still take four to five years in total. **Further work to streamline these three separate Federal and provincial environmental assessment processes is recommended, to address potential regulatory overlap and duplication, and provide for more definitive project timing.***

No other explanation is provided regarding the above-mentioned ‘initiatives’. It is not clear what these are, and when/whether they will be made public. No mention of options for joint federal provincial panels is made. Perhaps Manitoba will change its time and resource consuming avoidance of joint environmental panels.

Economics Section

The Economic Impacts section (pg. 20) states,

The CETI is anticipated to generate additional Canadian GDP of \$5.6 billion, while total direct and indirect employment is estimated at 85,000 person-years nation-wide. In addition, increased tax revenues of \$1.6 billion are expected to flow to all levels of government. The Federal government will likely receive the largest share of these tax revenues at approximately \$700 million.

A “preliminary analysis” by Manitoba Hydro is cited as the source of the figures above, however a complete reference for this preliminary analysis is not stated in the CETI report. This analysis should have been attached to the CETI report as an appendix.

The rest of the section provides figures regarding jobs, person-years of employment, investment, equipments supplies and services for both Manitoba and Ontario, without any references, sources, documentation, or justification for the stated numbers. Nor is it clear exactly which generation stations and transmission systems are included in these figures.

Given we are now in the 21st Century, Manitoba and Manitoba Hydro need to take the lead in using ‘value for externalities’ in all calculations for whole projects or systems

additions. This was not done for Wuskwatim. It is not evident in the calculations above either.

There is also a paragraph (pg. 25) on the reliability of water flows. The rivers that flow into Manitoba are characterized as “the continent’s most geographically comprehensive and diverse range of watersheds”, and according to the report, Manitoba’s overall average water flows fluctuate less than those in an individual system (i.e. the lowest overall historic flows produced only a 30% reduction below average).

No source is given for the above information. No references to climate change are made. Data appears to be based on past elevations and records. Given Climate Changes risks, it would have been prudent to provide decision makers and other audiences with a projection regarding water supply based on the last 30 years.

Project Energy Costs

The section on Project Energy Costs (pg. 27-31) is quite confusing (perhaps even more so for laypersons). It is unclear why the levelized cost of combined cycle gas turbine generation has anything to do with calculating the levelized cost of hydro. (Other than having something to compare to) And the validity of the practice of crediting the cost of hydro generation with the difference between the coal-fired “environmental adder” and that of their own emissions if the hydro is replacing existing coal-fired plants should be supported with other studies, reports which use a similar practice. (pg. 29)

Finally, none of the assumptions and numbers in this section are referenced. No clear statement about the value/cost of externalities is provided.

Comments Re: Accessibility / Presentation of the CETI Report

Table 1 (pg. 7) lists a sampling of Manitoba’s potential new supply options.

The total capacity of all projects listed in Table 1 is “>2,700 MW”. However, the report indicates Manitoba has a potential of approximately 5,000 MW above and beyond its domestic requirements. This begs the question of where the other approximately 2,300 MW will come from.

Figure 2 – Transmission Options (pg. 8) should be enlarged OR all maps and figures should be made available as jpegs because when made into pdfs as part of the report, quality is significantly reduced as to make them a source of frustration.

Figure 3 – Major Existing Transmission Lines in North America (pg. 10)

This Figure: Too small, unreadable/poor quality.

Lack of attribution: Manitoba Wildlands would suggest that an indication of source, authorship for this kind of report is usual. The lack of any source, contact, indication of joint Manitoba/Ontario support for the CETI report leaves the reader wondering why the report is anonymous.