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VIA E-MAIL

February 18, 2013

Shannon Johnson
Manager Licensing and Environmental Assessment Department
Manitoba Hydro
820 Taylor Avenue, Winnipeg, Manitoba

Dear Ms. Johnson:

Reference: Bipole III Cumulative Effects Assessment: Rebuttal to Gunn and Noble Critique

Background

The following was prepared by George Hegmann of Stantec. The purpose of this submission is to provide comment on critique made of the Bipole III Cumulative Effects Assessment (CEA) by Dr. Jill Gunn and Dr. Bram Noble in written and oral testimony.

Mr. Hegmann's comments are based on review of *Critical Review of the Cumulative Effects Assessment Undertaken by Manitoba Hydro for the Bipole III Project* (Gunn and Noble, 2012), testimony by Dr. Gunn and Dr. Noble at the Bipole III Transmission Project Public Hearing (CEC transcripts November 5, 15 and 22, 2012), Bipole III Project Chapter 9: *Cumulative Effects Assessment*, and Bipole III Transmission Project *Environmental Assessment Scoping Document*.

Dr. Gunn and Dr. Noble make numerous references to the *Cumulative Effects Assessment Practitioners Guide* (the "Guide"). The Guide is referenced in regards to various specifics on assessment method, and in general regarding establishment of a standard of practice for acceptable cumulative effects assessments (CEAs).

Mr. Hegmann was the chief editor and lead author of the *Cumulative Effects Assessment Practitioners Guide*, prepared by the Cumulative Effects Assessment Working Group for the Canadian Environmental Assessment Agency (CEAAgency, 1999).

Concerns of Dr. Gunn and Dr. Noble

Dr. Gunn and Dr. Noble claim that the CEA prepared by Manitoba Hydro for the proposed Bipole III Transmission Project (the "Project") is deficient, does not meet current best practice or even a minimum standard of practice, and does not meet the requirements of the Guide. They therefore conclude that the Environmental Assessment (EA) is deficient, the Project application is unacceptable and the Clean Environment Commission should adjourn the hearing until a revised CEA is submitted by Manitoba Hydro that satisfies Dr. Gunn and Dr. Noble's recommendations of improvement.

Of the various claims of deficiency made, two in particular are highlighted as most serious, and are identified here as "major concerns". The weight of these claims, both addressing fundamental technical method in any CEA, appear to alone support Dr. Gunn and Dr. Noble's assertion to reject the CEA. The claims are the selection process of Valued Environmental Components (VECs) and point in time represented by the baseline. Specifically, regarding VEC selection, they do not agree with the "project-centric" or "stressor-based" process followed in the Project CEA, instead advocating an "ecosystem or ecologically or VEC based" approach based on health of ecosystem. Regarding baseline, they do not agree with the use of current conditions (at time of assessment) which they refer to as "shifting baseline",

instead advocating use of a historical or pre-development baseline representing a much earlier point in time.

Other claims of deficiency are identified here as “other concerns”, which appear to be of relatively lesser contribution individually to their assertions of overall CEA deficiency. These include lack of use of thresholds, reliance on future management measures associated with other projects, exclusion of accidental events, overly spatially restrictive study areas, lack of computer based future scenario modelling tools, limited future time horizons, use of regional approaches per the Canadian Environmental Assessment Act (CEAAct), and lack of significance conclusions for overall cumulative effects on a VEC.

Rebuttal on Major Concerns

Cumulative effects assessments, prepared in support of project regulatory applications pursuant to the provisions of environmental assessment legislation in Canada, follow a “project-centric” approach. This approach examines potential effects by a proposed project on selected VECs, and through a cause-effect analysis evaluates significance of residual effects. The Guide and the CEAAct supports this as a fundamental basis of assessment. As such, any CEA using this approach reflects current and best practice and is not deficient in regards to VEC selection and assessment of effects.

Also, for such regulatory applications, use of existing conditions to represent baseline is an acceptable approach. Such baselines include present and past human actions to the extent they may be mapped and otherwise identified. Earlier baselines may be beneficial in some cases. The Guide supports this as a fundamental basis of assessment of best practice. As such, any CEA using this approach reflects current practice is not deficient in regards to use of baseline.

Rebuttal on Other Concerns

Thresholds should be used to assist evaluation of significance, but thresholds are not available for many VECs. As such, as long as efforts are demonstrated to identify and apply if available, absence of use of thresholds do not necessarily represent a deficiency. This represents current practice and the Guide supports this view.

Reliance on future management measures associated with other projects is not “passing the buck” as claimed. It is a pragmatic and realistic recognition of one part of the long-term solution of cumulative effects within a given region. As such, mention of future measures supported by future projects does not necessarily represent a deficiency as long as reasonable efforts are committed to regarding effects management. This represents current practice and the Guide supports this view.

Cumulative effects assessments assess potential project effects arising from routine project impacts. Accidental events are not assessed in CEAs. As such, absence of such an assessment within a CEA does not represent a deficiency. There is no federal guidance that stipulates inclusion of assessment of accidents in a CEA. [1] Assessment of accidents, malfunction and upset events (AMUEs) is typically done separately within a regulatory application. This represents current practice and the Guide supports this view.

Study areas to assess cumulative effects can vary considerably based on the nature of the cause-effects on VECs. For linear projects such as transmission lines, use of a study area also based on a linear corridor is common practice. This is commonly represented by a buffer along each side of the project

[1] Including the Guide and the CEAAgency’s Operational Policy Statement (OPS) *Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act* (2007).

right-of-way. As such, use of such study areas does not necessarily represent a deficiency. This represents current practice and the Guide supports this view.

Computer based future scenario modelling tools may be used to support a regulatory CEA; however, it is not mandatory and current practice has been largely limited to non-regulatory applications (specifically, regional assessments not associated with a particular project under public review). This represents current practice. The Guide makes no specific mention of use of such landscape models but does refer to use of Geographic Information Systems (GIS) to assist analysis, a tool that offers similar opportunities in support of analysis.

The future time horizons in years to examine cumulative effects can vary considerably based on the nature of the cause-effects on VECs. The time horizons that are most useful are those assessable with a reasonable degree of certainty and that provide meaningful information to decision makers. This represents current practice and the Guide supports this view.

The CEAAct's requirements (S.C. 1992, c. 37, 16(2)) regarding regional studies is misinterpreted. The Act does not state that a regional assessment approach be used by CEAs in regulatory applications, but only that any information from any relevant available such studies be considered. The Guide makes no comment in this regards, this provision coming into force following the Guide's publication.

Significance conclusions for cumulative effects on a VEC need to provide the incremental contribution of the project under review to cumulative effects, not just the significance of overall cumulative effects. The incremental project contribution provides essential understanding to assist decision makers in evaluating the merits of the proposed project in the public interest. The Guide supports this view.

Conclusion on Deficiency of Bipole III CEA

The Cumulative Effects Assessment for the Bipole III Transmission Project meets the requirements of the Guide. On at least this basis, the CEA is not deficient and meets current practice. The CEA may benefit from certain matters of clarification and expansion of detail. However, these do not constitute as claimed by Dr. Gunn and Dr. Noble fundamental deficiency to the extent of rejection of the CEA and its complete revision based on their recommendations.

Observations on Legitimacy of Critique

Many comments made by Dr. Gunn and Dr. Noble are not appropriate in the context of CEAs conducted in support of regulatory applications. These same comments however are appropriate in the context of regional or strategic environmental assessments. The distinction between these two types of "cumulative effects assessments" is essential, sharing the same name but not necessarily sharing the same information requirements, expectations, approach and objectives.

Establishment of a benchmark for best practice should not be left solely to the opinion of the academic literature as purported by Dr. Gunn and Dr. Noble. Much of that literature is premised on the need to pursue fundamental scientific research and achieve ideals beyond the purview of current practice and guidance. Such considerations must also be balanced by the pragmatic considerations, limits and opportunities afforded to the application of science and analysis by practitioners conducting CEAs for project applications under provisioning legislation and public review process.

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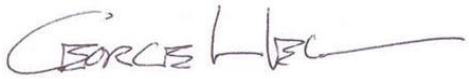
Closure

Comments expressed by Mr. Hegmann represent his views based on his experience and professional judgement as a consulting assessment practitioner. Mr. Hegmann's CV is attached. Mr. Hegmann is not a lawyer and as such is not providing legal opinion.

Sincerely,



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Attachment: CV G. Hegmann

cc:. Doug Bedford, Janet Mayor