



MANITOBA METIS FEDERATION INC.

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July 2, 2013

The Public Utilities Board
400-330 Portage Ave.
Winnipeg, MB R3C 0C4

VIA EMAIL & REGULAR MAIL

Attention: Mr. Hollis Singh, Secretary of the Public Utilities Board

Dear Mr. Singh:

**Re: Manitoba Metis Federation Inc. ("MMF") Response to
Public Utilities Board ("PUB") Order 67/13 in the
Needs For and Alternatives To Review ("NFAT") of
Manitoba Hydro's Proposed Preferred Development Plan ("Plan")**

Introduction

In Order 67/13, the PUB granted the MMF Intervener Status in the NFAT. The MMF appreciates the opportunity to contribute to the NFAT and looks forward to continuing to work with the PUB, Manitoba Hydro and other Interveners in this process.

Based on our reading of Order 67/13 on June 11, 2013, the PUB directed MMF to:

1. Collaborate with other Interveners in order to avoid duplication;
2. Detail the specific and approved issues we are proposing to address with direct reference to the Terms of Reference ("TOR") and the expert consultants and witnesses that we are proposing to retain to speak to those issues;
3. Provide a draft budget for proposed expert consultants and witnesses based on the TOR; and
4. Provide a definition of "Macro Environmental" and "Socio-Economic Impacts", as used in the TOR and provide a list of items proposed to be included in our evidence on these topics.

In addition to the above, the MMF will further advise the PUB of:

5. MMF Comments re: Scope of "Macro Environmental Impact" and "Socio-Economic Impacts"; and
6. The MMF's application to vary Order 67/13 re: MMF legal counsel requirements.

Please advise us if we have misstated the direction provided by the PUB or if our list as set out above is incomplete.

Note

The following response by the MMF has been prepared based on the TOR. As has been expressed by other Interveners, the MMF will be revising the outline of specific and approved issues we propose to address, our proposed expert consultants and witnesses and draft budget after the MMF has reviewed Manitoba Hydro's Plan to be submitted on or about August 16, 2013.

As the MMF has not participated in previous NFAT proceedings before the PUB, it appreciates the guidance provided by the Consumer's Association of Canada, Manitoba Chapter ("CAC"). Discussions with CAC counsel, Mr. Williams and his client have led to a greater understanding of the NFAT and what the PUB requires from Interveners.

The MMF intends to meaningfully contribute to this process and is willing to provide monthly reports to the PUB detailing the work of MMF and its expert consultants and witnesses and/or is open to hearing any other ideas that may assist MMF in this regard.

1. Collaboration with other Interveners

The MMF has discussed common issues and potential collaboration with the CAC and the Manitoba Industrial Power Users Group ("MIPUG"). While we have not yet had discussions with Manitoba Keewatinowi Okimakanak ("MKO") in this regard, we anticipate that we will be able to do so in the coming weeks. Even though the MMF and the MKO will be proposing evidence specific to the distinct interests of our respective communities, the MMF is of the view that there will likely be some common issues and opportunities for potential collaboration between MMF and MKO.

Collaboration with CAC

As indicated in the CAC's submission to the PUB, we have discussed proposing that the PUB hear from a panel comprised of rate payers from northern and Aboriginal communities as well as from Winnipeg. From what we understand, the MMF would suggest one or two panelists that could speak to the impact of potential rate increases and outline some of the specific concerns of the Manitoba Metis Community in this regard.

We have also discussed the need for continued discussion in identifying common issues and potential collaboration with the CAC, particularly with respect to the impact on domestic rates, and financial and economic risks of the Plan.

Collaboration with MIPUG

The consideration of the socio-economic impacts to the Manitoba Metis Community will include the business interests of our citizens and our Nation. The MMF has committed to provide MIPUG with an updated list of the Metis Business Directory in order to identify if there will be any common issues and potential collaboration between MIPUG and MMF.

2. Issues to be Addressed & Expert Consultants and Witnesses

The MMF is proposing to retain Mr. Rick Hendricks, B.Eng., B.Sc. of Camerado Energy Consulting Inc. ("Camerado") as an expert consultant/witness. Mr. Hendricks is based out of Hamilton, Ontario and provides management consulting, strategic planning, research and other services to communities with respect to energy planning, assessment, development and conservation. Mr. Hendricks' CV is attached hereto as Schedule "A".

The MMF is proposing that Mr. Hendricks assist the MMF in all aspects of the MMF's participation in the NFAT, including but not limited to, the review of the Plan, preparation of the MMF's evidence, review of Manitoba Hydro and other Intervener evidence, preparation and review of evidence on information requests, and participation in hearings. Mr. Hendricks will also assist the MMF in preparing and/or delivering evidence with respect to items 2(h) to (j) of the TOR. A detailed list of specific issues to be addressed by Mr. Hendricks is attached hereto as Schedule "A".

The MMF is also proposing to retain Ms. Meghan Birnie, M.A., and Ms. Abbie Stewart M.Sc., P.Biol. of Management and Solutions in Environmental Science ("MSES") out of Calgary, Alberta, as expert consultants/witnesses. The MMF is proposing that MSES review items 2(h) to (j) of the TOR, with a particular focus on the concerns of the MMF with respect to socio-economic and macro-environmental impacts to the Manitoba Metis Community. MSES CVs and a detailed list of specific issues to be addressed by MSES are attached hereto as Schedule "B".

The MMF is also proposing to retain Mr. Gerry Barron to assist with the overall management of the MMF's role in the hearing process. Mr. Barron is a Civil Engineering Technologist and a Certified General Accountant who worked 7 years at an engineering firm providing advice to the PUB on regulatory matters prior to joining the PUB staff team and from 1980 to retirement worked at all staff levels at the PUB leading to the most senior position of Executive Director - a position held for most of his professional career at the PUB. Currently, he is providing consulting services to municipalities making water and sewer rate applications to the PUB.

While at the PUB, Mr. Barron developed the Rules of Practice and Procedure currently employed by the PUB, the rules regarding the awarding of costs to Interveners and as a senior staff person advised the PUB on all matters coming before the PUB.

3. Draft Budget for Proposed Expert Consultants and Witnesses based on the TOR

The MMF notes that Appendix II, the NFAT Intervener Budget and Cost Summary Sheet is to be used to prepare a budget after August 16, 2013 and file with the PUB by August 30, 2013. In the meantime, we have been directed to provide a draft budget for proposed expert consultants and witnesses.

The total budget for proposed expert consultants and witnesses as outlined in the attached individual budgets for each amounts to \$180,790.00. Attached hereto as Schedule "C" is a detailed breakdown of the MMF's draft budget for expert consultants and witnesses.

4. Definition of "Macro Environmental Impact" and "Socio-Economic Impacts"

The MMF asked Mr. Hendriks of Camerado to provide a definition of "Macro-Environmental impact" and provide a list of specific items that should be included in MMF's evidence on this topic. Attached as Schedule "D" are the explanatory notes and the list of specific items that MMF proposes to include as part of our evidence on this topic, as prepared by Mr. Hendriks.

The MMF asked Ms. Birnie and Ms. Stewart of MSES to provide a definition of "Socio-Economic Impacts" and provide a list of specific items that should be included in MMF's evidence on this topic. Attached as Schedule "D" are the explanatory notes and the list of specific items that MMF proposes to include as part of our evidence on this topic, as prepared by MSES.

5. MMF Comments re: Scope of "Macro Environmental Impact" and "Socio-Economic Impacts"

The TOR provide that the Panel's report to the Minister will address the following items:

An assessment as to whether the Plan is justified as superior to potential alternatives that could fulfill the need. The assessment will take the following factors into consideration:

- (h) The socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities;
- (i) The macro environmental impact of the Plan compared to alternatives;
- (j) If the Plan has been justified to provide the highest level of overall socio-economic benefit to Manitobans, and is justified to be the preferable long-term electricity development option for Manitoba when compared to alternatives.

The TOR further provide that the following is not in scope of the NFAT:

The environmental reviews of the proposed projects that are part of the Plan, including Environmental Impact Statements (these will be conducted through individual processes by the Manitoba Clean Environment Commission ("CEC")),

and where possible the impacts of the matters to be considered by the CEC are included in the costs of the projects that are part of the Plan.

The Need for a Thorough Review of (h), (i) and (j) in the TOR

The MMF is of the view that the Government of Manitoba included items (h), (i) and (j) of the TOR for the NFAT for a reason. The Keeyask and Conawapa Generation Stations, their associated domestic current transmission facilities, and a new Canada-United States of America transmission interconnection (the "Project") have the potential to significantly impact the Manitoba Metis Community and all Manitobans. It follows, that a thorough review of Hydro's Plan and alternatives to the Plan is needed.

The MMF notes the direction provided by the Government of Manitoba in item (j) of the TOR, to consider if the Plan is justified to provide "the highest level of overall socio-economic benefit to Manitobans". The "highest level of overall socio-economic benefit" cannot be confused with "high level reviews", as was referenced in Manitoba Hydro's letter to the PUB dated June 28, 2013. Conducting "high level reviews" with respect to items (h), (i) and (j) would not provide the level of analysis required in order to give full consideration to these factors. A thorough review of the macro environmental impacts and socio-economic impacts and benefits to the Manitoba Metis Community and all Manitobans is required.

Regarding Duplication with the CEC

The Manitoba Clean Environment Commission ("CEC") process is one that is primarily focused on whether or not the Commission will recommend the issuance of an *Environment Act* license for a particular project. This NFAT will be an opportunity for Interveners to suggest that the PUB consider Manitoba Hydro's Plan and alternatives to the Plan at the outset. The MMF suggests that the matters in (h), (i) and (j) should be appropriately considered in the NFAT. The MMF is of the view that consideration by the PUB of items (h), (i) and (j) of the TOR, does not mean that a duplication of the efforts of the CEC will necessarily occur. The role with respect to the MMF's intervention in the NFAT is specific to consideration of Manitoba Hydro's Plan and alternatives to the Plan. At this point, we are being asked to rely on Manitoba Hydro's statements that each of the projects that together comprise the Plan, will be individually put to the rigours of environmental assessment. The MMF would respectfully remind that the upcoming hearings at the CEC will be specific to the Keeyask Generation Project only.

6. Application to Vary Order 67/13

The MMF may be advising the PUB of a change in circumstances since the first Pre-Hearing Conference on May 16, 2013 and may make an application for the PUB to consider varying Order 67/13 on or before the deadline of July 10, 2013. Such application would seek to include in the MMF's granting of intervener status, the ability for MMF to recover legal fees for its participation in this process. In doing so, the MMF will prepare and include as a Schedule to the Application, a draft budget regarding legal fees.

Conclusion

The MMF would like to thank the PUB for its consideration. Further the MMF would like to thank the PUB for granting an extension to the MMF's time for providing our response to Order 67/13 upon hearing from the MMF, the extenuating circumstances that prevented MMF from being in a position to meet the deadline of June 28, 2013.

If you have any questions or if you would like to discuss this further, please feel free to contact me at your earliest opportunity.

Yours truly,



Jessica Saunders
MMF Corporate Counsel

cc. R.F. Peters, Fillmore Riley LLP, Board Counsel
Patricia J. Ramage, Manitoba Hydro
Registered Interveners

Attachments:

Schedule "A": CVs for MMF's proposed expert consultants and witnesses
Schedule "B": Outline for Rick Hendricks
Schedule "C": Outline for MSES
Schedule "D": Draft Budget for Expert Consultants and Witnesses
Schedule "E": Outline of Macro-Environmental and Socio Economic Definitions and Items for Consideration

Schedule A

Corporate Profile

Camerado Energy Consulting Inc. provides management consulting, strategic planning, research, negotiation, training, and public consultation services with respect to energy planning, assessment, development and conservation. We work with Aboriginal communities, municipalities, community energy cooperatives, and non-governmental organizations to support collaborative energy planning, effective intervention in regulatory processes, successful negotiation and issues resolution with industry, meaningful consultation and public participation by government, and informed and consensus decision-making.

Director Profile

Richard M. (Rick) Hendriks has over fifteen years of technical, environmental, regulatory and policy knowledge and experience of the hydroelectricity sector in Canada. He uses his knowledge and experience to advocate on behalf of communities attempting to manage the environmental, social and economic challenges that often accompany electricity generation, transmission and related development.

Mr. Hendriks works with community and organizational leadership to envision, implement and achieve strategic objectives. Trained in engineering, science and social science, he brings an analytical, structured and comprehensive approach to understanding and explaining the opportunities and risks of energy plans and proposals. An experienced negotiator, facilitator and teacher, Rick supports communities seeking to build partnerships with industry, to understand the implications of proposed projects and development plans, to resolve historic conflicts, and to intervene in the regulatory process to change the course of development.

Related Testimony

Legislative Assembly of Alberta, Standing Committee on Resource Stewardship – Review of the Potential for Expanded Hydroelectric Energy Production in Northern Alberta (2013)

- Improving the Regulatory Process for Hydroelectric Development
- Considerations for Electricity Resource Planning in Alberta

British Columbia Ministry of Energy – Industrial Electricity Policy Review (2013)

- Transmission Service Rates; Aboriginal Policy; Environmental Policy

BC Hydro – Draft Integrated Resource Plan (2012)

- Aboriginal Consultation; Energy Planning; Implications for the proposed Site C Project

Alberta Utilities Commission – Inquiry on Hydroelectric Power Generation Development (2010)

- The Policy and Planning Context for Hydroelectric Development in Alberta
- The Regulatory Process for Hydroelectric Development in Alberta

Related Projects

Treaty 8 Tribal Association, BC Hydro Site C Clean Energy Project (2010-)

- Provide strategic direction concerning First Nation intervention in the environmental assessment and related integrated resources planning processes for a proposed large-scale hydroelectric project and associated high voltage transmission in north-eastern British Columbia
- Represent the potentially-affected First Nation communities in consultation and accommodation discussions and negotiations with the Crown proponent and government agencies

Confidential Client, Transmission Line Compensation Claim (2010-)

- Research and report on historical and contemporary environmental effects, electricity policy, land use policy, and distribution and transmission line infrastructure development in support of a pending claim for compensation and revenue sharing

Smith's Landing First Nation, Alberta Standing Committee on Resource Stewardship (2013)

- Provided oral testimony and prepared written submissions to the multi-party Committee assessing the potential for expanded hydroelectric energy production in Northern Alberta

Innu Nation, Nalcor Energy Lower Churchill Project (2006-2011)

- Primary researcher and author of written submissions to the Joint Panel Review environmental assessment of the Lower Churchill Hydroelectric Generation Project, and the comprehensive study environmental assessment of the Labrador-Island Transmission Link
- Participated in ongoing community and Crown consultation requiring public presentations, regulatory submissions, workshops and plain-language summaries
- Provided ongoing technical support for negotiation of an impacts and benefits agreement in relation to the proposed project and a compensation agreement concerning prior infringements

Treaty 8 Alberta Nations, AUC Inquiry – Hydroelectric Power Generation (2010-2011)

- Researched regulatory processes for hydroelectric generation and transmission development across Canada to identify best practices for environmental assessment and First Nation consultation in relation to hydroelectric development
- Prepared submissions and provided oral testimony to the Alberta Utilities Commission on behalf of Athabasca Chipewyan, Mikisew Cree and Smith's Landing First Nations

Smith's Landing First Nation, Atco-TransCanada Slave River Hydro Development (2007-2010)

- Successfully negotiated a feasibility participation agreement with Atco Power and TransCanada for the joint conduct of a multi-year baseline and feasibility study program
- Systematically reviewed the relevant literature pertaining to the ecological, social and economic environment, including the effects of previous hydroelectric development on the Peace River

Attawapiskat First Nation, Victor Diamond Project (2003-2008)

- Coordinated environmental and technical review of a proposed open pit diamond mine and associated transportation and energy transmission infrastructure
- Successfully negotiated the environmental protection chapter of an impacts and benefits agreement between the Attawapiskat First Nation and De Beers Canada

Professional Experience

Camerado Energy Consulting Inc. (2009-)

- Founder and Director of a management consulting company providing services to Aboriginal communities, municipal governments, energy cooperatives, and non-governmental organizations

Chignecto Consulting Group Inc. (2002-2009)

- Associate with a leading management consulting company providing resource negotiation and related support to Aboriginal communities across Canada

Innu Nation (1998-2002)

- Environmental Engineering Analyst for a First Nation organization in relation to hydroelectric and related transmission development

Education

Bachelor of Engineering & Society (Civil), McMaster University, Hamilton, Ontario (1996)

Bachelor of Science (Honours), McMaster University, Hamilton, Ontario (2009)

McMaster University, Instructor, Engineering and Society Program (2003-2005)

- Co-instructed an undergraduate course aimed at developing skills to assess, manage, and prevent environmental problems associated with engineering design, including: industrial ecology, life-cycle assessment, and design-for-environment with applications to energy, mining, and materials

Related Activities

Hamilton Association for Renewable Energy, Founding Member (2013-)

- Collaboratively founded a community-based renewable energy association with the mission of developing small-scale, cooperatively-owned renewable energy projects

Affiliations

- Ontario Sustainable Energy Association (2009-)
- Ontario Waterpower Association (2010-)
- Ontario Association for Impact Assessment (2009-)

Languages

- English (fluent), French (working), Spanish (conversational)

MEMORANDUM

TO:	Manitoba Metis Federation	DATE:	June 27, 2013
ATTN:	Jessica Saunders, Marci Riel		
FROM:	Rick Hendriks		
RE:	Meaning of "Macro Environmental Impact"		

INTRODUCTION

Section 4.3 of Order No. 67/13 issued by the Board on June 11, 2013 states that: "Manitoba Hydro and any approved Intervener that intends to address:

"2(i) the Macro-Environmental impact of the plan compared to alternatives"

must submit their definition of "Macro-Environmental" together with a detailed list of all the specific items proposed to be included in their evidence on the topic."

Since the only use of the term "Macro-Environmental" is in relation to the "impact" of the plan compared to the alternatives, we have considered this term in its more complete form of "macro-environmental impact" in order to better determine its intended meaning.

Macro Environmental Impact

Suggested definition:

"Macro-Environmental Impact" means: the collective adverse changes to the air, land, water, flora and fauna, including the potential significance of these changes, their equitable distribution within and between present and future generations, and their implications for ecological processes, biodiversity and life support systems of the environment

Explanatory notes:

1. The term "impact" is somewhat nebulous and could include either both beneficial and adverse changes or only adverse changes. The use of the phrase "socio-economic impacts and benefits" in 2(h) of the Terms of Reference suggests that the term "impact" in 2(i) was intended to refer only to adverse changes. The term is also singular not plural, which suggests that there was an intention that the individual adverse effects or changes need to be considered collectively.
2. The term "environmental" appears to be intended to refer to the definition of "environment" contained in the *Sustainable Development Act*, given the references in 1(b) and 2(b) of the Terms of Reference to the Principles of Sustainable Development in the *Act*. This definition of "environment" in the *Act* reads as follows: "'environment" includes air, land, water, flora and fauna".

3. The term “macro” is much less clear. Literally, the term means “very large in scale, scope, or capability”. However, limiting the consideration of impact only in relation to “scale, scope or capability” may be somewhat narrow considering the requirement in the Terms of Reference to assess the “alignment of the Plan and alternatives to ... the Principles of Sustainable Development as outlined in the *Sustainable Development Act*”, which involve: management for equitable benefit within and between generations (Principle 2 – Stewardship, and Principle 3 – Shared Responsibility and Understanding); significant adverse environmental effects (Principle 4 – Prevention), where significance typically refers to effects that are not only large in “scale, scope or capability” but that are also, for example, of long duration or irreversible; and the need to maintain ecological processes, biodiversity and life support systems of the environment (Principle 5 – Conservation and Enhancement), which suggests the need for consideration of impact of the plan and its alternatives in the context in which they would occur, suggesting the need for consideration of cumulative environmental changes.
4. In summary, in order for the assessment to take into consideration “alignment of the Plan and alternatives to ... the Principles of Sustainable Development”, “macro environmental impact” cannot refer to a “high level summary of environmental impacts and benefits sufficient to compare resources (not detailed evaluations such as an EIS)” as suggested by Manitoba Hydro in the pre-conference hearings (at p.48). First, it does not appear that the term “impact” was intended to refer benefits at all else the term “benefit” would have also appeared in 2(i) of the terms of reference as it does in 2(h). Secondly, a “high level” consideration is not implied by the term “macro” which refers to the nature of the impact on the environment not the extent of the analysis required to determine that impact. In other words, though the “detailed evaluations such as an EIS” may not be required, a “high level summary” will not address the requirements of the Principles of Sustainable Development, particularly in relation to matters of significance, equity and maintenance of ecological processes, biodiversity and life support systems of the environment. Thirdly, no “summary” is specifically implied by the term “macro-environmental impact”. Although the singular nature of the term “impact” does suggest that the entirety of the collective changes are to be presented for comparison. The use of a “summary” implies a summation of the environmental changes. In general, this will not be possible since the kinds of environmental changes will be different between the Plan and the alternatives and cannot simply be “summed” for the Plan and the alternatives and the end results readily compared. As such, we are proposing the term “collective” in the definition, which implies a bringing together of the environmental changes where their characteristics are maintained. In plain language, if the environmental changes of the Plan and the alternatives could be considered as different kinds of food, we propose that they be presented as on a banquet table, rather than that their summed caloric value, protein quantity, etc. be presented, as suggested by Manitoba Hydro.

Specific Items

- Methodologies for defining, categorizing and comparing the adverse environmental changes that compose the macro-environmental impact;

- Consideration of management of the environment for the equal benefit of present and future generations, as indicated by principle 2(1) of the Principles for Sustainable Development;
- Consideration of caring for the environment for the benefit of present and future generations, as indicated by principle 2(2) and 3(4) of the Principles for Sustainable Development;
- Consideration of anticipation, prevention and mitigation of the significant adverse environmental effects of the Plan and its alternatives, as indicated by principle 4 of the Principles for Sustainable Development;
- Consideration of adverse environmental changes that are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being, as indicated by principle 4 of the Principles for Sustainable Development.
- Consideration of the maintenance of ecological processes, biological diversity and life support systems of the environment, the potential for sustainable yield of harvestable renewable resources, efficient use of renewable and non-renewable resources, and enhancement of the long-term productive capability, quality and capacity of natural ecosystems, as indicated by principle 5 of the Principles for Sustainable Development.
- Consideration of the potential for rehabilitation and reclamation of the adverse environmental changes associated with the Plan and its alternatives, as indicated by principle 6 of the Principles for Sustainable Development.
- Consideration of other aspects of the Principles of Sustainable Development as the evidence and information presented during the NFAT Review may require.

MEMORANDUM

TO:	MMF	DATE:	June 27, 2013
CO:	Jessica Saunders, Marci Riel		
FROM:	Rick Hendriks		
RE:	NFAT – Draft Budget		

INTRODUCTION

Sections of NFAT Terms of Reference to be Addressed

The following sections of the Terms of Reference will be addressed:

- 2(h) The socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities;
 - nature and scope of the impacts and benefits considered
 - methodology for comparison of the Plan and the alternatives
 - consideration of capacity of northern and aboriginal communities to attain purported benefits
 - consideration of resiliency of northern and aboriginal communities to cope with potential impacts
 - critical or sensitive assumptions and risks
- 2(i) The macro environmental impact of the Plan compared to alternatives;
 - methodologies for defining, categorizing and comparing the adverse environmental changes that compose the macro-environmental impact;
 - consideration of management of the environment for the equal benefit of present and future generations, as indicated by principle 2(1) of the Principles for Sustainable Development;
 - consideration of caring for the environment for the benefit of present and future generations, as indicated by principle 2(2) and 3(4) of the Principles for Sustainable Development;
 - consideration of anticipation, prevention and mitigation of the significant adverse environmental effects of the Plan and its alternatives, as indicated by principle 4 of the Principles for Sustainable Development;
 - consideration of adverse environmental changes that are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being, as indicated by principle 4 of the Principles for Sustainable Development.
 - consideration of the maintenance of ecological processes, biological diversity and life support systems of the environment, the potential for sustainable yield of harvestable renewable resources, efficient use of renewable and non-renewable resources, and enhancement of the long-term productive capability, quality and

- capacity of natural ecosystems, as indicated by principle 5 of the Principles for Sustainable Development.
- consideration of the potential for rehabilitation and reclamation of the adverse environmental changes associated with the Plan and its alternatives, as indicated by principle 6 of the Principles for Sustainable Development.
 - critical or sensitive assumptions and risks
- 2(j) If the Plan has been justified to provide the highest level of overall socio-economic benefit to Manitobans, and is justified to be the preferable long-term electricity development option for Manitoba when compared to alternatives.
 - matters of justification in relation to the socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities;
 - Matters of justification in relation to the macro environmental impact of the Plan compared to alternatives;

Schedule B



27 June 2013

Our Reference: #1331

Ms. Marci Riel, MMF Hydro Liaison
Ms. Jessica Saunders, MMF corporate council
150 Henry Avenue
Winnipeg, MB
R3B 0J7

Dear Marci and Jessica:

Re: Third-Party Review of Manitoba Hydro's 2013 Proposed Development Plan

Thank you very much for the opportunity to participate in the review process for Manitoba Hydro's proposed Development Plan (PDP). Management and Solutions in Environmental Science (MSES) has been asked to review socio-economic and macro-environmental components of the PDP on behalf of the Manitoba Métis Federation (MMF). MSES is to evaluate whether the information contained in the PDP is complete, accurate, and scientifically defensible and whether it addresses MMF concerns. MSES will identify any existing information gaps and make recommendations to Manitoba Hydro and the MMF on ways to address these gaps moving forward.

The PDP will be made available to the public on August 16th, 2013. As such, this scope of work includes a preliminary budget only and may be refined upon receipt of the final PDP. Below we estimate the effort we expect is needed to conduct a technical review of the relevant PDP sections and to familiarize ourselves with existing background information. The review will be designed to reflect concerns of Manitoba Métis with respect to potential socioeconomic and macro-environmental impacts. We estimated the effort we expect is needed to produce two rounds of information requests (IRs) and a final report outlining potential issues and follow up

recommendations related to project development, for the MMF. We have also estimated hours associated with hearing preparation and attendance; however, all tasks will require re-scoping pending receipt of the final PDP, the outcome of technical review, and once requirements for hearing attendance are better understood.

Based upon our communications with you and based upon the NFAT Term of Reference, the focus of this work will be on the following tasks:

Socioeconomic Impacts

Aspects of PDP to be reviewed:

Assessment as to whether the Plan is justified as superior to potential alternatives that could fulfill the need, including consideration of the socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities [NFAT Review Terms of Reference, item 2(h)].

Section 4.3 of Order No. 67/13 issued by the Board on June 11, 2013 states that: "Manitoba Hydro and any approved Intervener that intends to address: '2(h) the socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities' must submit their definition of 'Socio-economic Impact' together with a detailed list of all the specific items proposed to be included in their evidence on the topic."

Recommended Definition of 'Socio-economic Impact':

"...The consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society."¹

Explanatory Notes:

1. Economic Impacts.

Increased economic activity can be a driver of social and cultural change, particularly in aboriginal populations and small communities that have a mixed wage and traditional

¹ Definition put forth by "The Interorganizational Committee on Principles and Guidelines for Social Impact Assessment" and provided in Rabel J. Burdige and Colleagues, *The Concepts, Process and Methods of Social Impact Assessment*, 2004, p.81.

economy.² A thorough analysis of the economic change that a proposed development is likely to cause is essential to Socio-economic Impact Assessment (SEIA). In the context of aboriginal communities, this analysis must include impacts on the wage and traditional economies.

2. Social Impacts:

There are many drivers of Social Impacts. The scope of the SEIA must not be limited to assessing social impacts caused by direct economic effects of the proposed development (i.e. employment).

Social Impacts can be conceptualized as changes to one or more of the following:

- people's way of life – that is, how they live, work, play and interact with one another on a day-to-day basis;
- their culture – that is, their shared beliefs, customs, values and language or dialect;
- their community – its cohesion, stability, character, services and facilities;
- their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose;
- their environment – the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- their health and wellbeing – health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity;
- their personal and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties;
- their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.³

3. The Socio-economic Impact Assessment:

A properly conducted assessment will answer the following questions:

² MVEIRB, *Socioeconomic Impact Assessment Guidelines*,
http://www.reviewboard.ca/upload/ref_library/SEIA_Guidelines_Chapter_2.pdf

³ International Association of Impact Assessment (IAIA), *Social Impact Assessment*,
http://www.iaia.org/iaia/wiki/sia.ashx#What_are_social_impacts_1

- What will happen if a proposed action were to be implemented – why, when, and where?
- Who is being affected?
- Who benefits and who loses?
- What will change under different alternatives?
- How can adverse impacts be avoided and mitigated, and benefits enhanced?⁴ (Taylor et al., 2004, Wolf, 1980, p.4 in the above-cited reference).

Impacts depend on interactions between characteristics of (1) the project, (2) any mitigation, (3) the community (i.e. vitality, viability, resilience, impact history), and (4) individuals. Impacts are not stable, and impacts differentially affect people.⁵

Specific Items:

It is assumed that the SEIA will include an assessment of impacts on typical Valued Socio-economic Components (VCs), including the following:

- Demographics
- Local and Regional Economies (including local procurement and employment effects)
- Education, Training, and Skills
- Infrastructure and Institutional Capacity
- Human Health and Community Wellness (including individual and family wellness)
- Land Use
- Socio-cultural Patterns
- Heritage Resources
- Others as may be appropriate

The MMF will review the assessment on the above (or similar) VCs, focusing on the extent to which the SEIA assesses the potential impacts of the project on the Metis, and whether the methods used allow for an accurate assessment of the impacts and the identification of effective mitigation. Given this, the MMF will review the following specific items:

- Methods:
 - The selection of VCs is justified and is relevant to potentially-affected Metis;

⁴ Taylor et al., 2004, Wolf, 1980, in Rabel J. Burdge and Colleagues, *The Concepts, Process and Methods of Social Impact Assessment*, 2004, p.4.

⁵ Course Materials, "Social Impact Assessment and Management", Training Course offered by Community Insights Group at IAIA 2013 Conference.

- The indicators used are relevant and appropriate to potentially-affected Metis.
 - Whether potentially-affected Metis were involved in, or provided input to, the selection of VCs, the identification of indicators, the assessment results, and the determination of significance, and an explanation of how their input was used.
- Change in the environment that alters land use can be anticipated to have concomitant economic (i.e. traditional economy), social, and cultural effects. The MMF will review the extent to which the SEIA gives consideration to, and provides an accurate assessment of, potential economic, social, and cultural effects, as these may or may not be felt uniquely by the Metis, that stem from potential changes in land use. This will include a review of suggested measures to mitigate these effects to determine whether these are appropriate and can be anticipated to be effective.
- In Aboriginal communities that are mixed wage and traditional economy, anticipated economic effects, as well as social and cultural impacts, are often identified during the conduct of a Traditional Land Use and Knowledge Study (TLUKS). The MMF will review the extent to which efforts were made to incorporate information from the TLUKS into all aspects of the SEIA, which could be expected to result in a more accurate assessment of the impacts on the Metis. (If the TLUKS is not complete at the time the PDP is submitted, the MMF will review how the proponent proposes to use information from the TLUKS when this is available).
- Given that Manitoba Hydro has entered into agreements with some First Nations (and communities?), the MMF will review the SEIA seeking to understand how Manitoba Hydro proposes to mitigate impacts on the Metis, some of which may be uniquely felt, and provide benefits to the Metis, without such an agreement.

Macro Environmental Impacts

Aspects of PDP to be reviewed:

Mr. Rick Hendriks, consultant to the MMF, has suggested a definition of macro environmental impacts that we will adopt for the review: *"the collective adverse changes to the air, land, water, flora and fauna, including the potential significance of these changes, their equitable distribution within and between present and future generation, and their implications for ecological processes, biodiversity and life support systems of the environment"*.

Under this definition, MSES will review the PDP with respect to the following:

- Consideration of the approach and methods used to identify, assess, and compare adverse cumulative environmental effects on traditional resources of the MMF.
- Consideration of practical plans to manage and mitigate cumulative impacts to traditional resources of the MMF.

Deliverables

- Prepare initial information requests (IRs) to Proponent.
- Review and prepare second round of IRs.
- Prepare a report identifying gaps in the PDP with respect to the socioeconomic and macroeconomic items identified above and discuss their implications for the Métis community.

Bios of the key members of our team on this project are listed below:

Ms. Meghan Birnie, M.A.

Socioeconomics, Aboriginal Consultation

B.A. Int'l Development Studies, M.A. Resources and the Environment

Meghan Birnie has 10 years of experience in socioeconomic impact assessment and management, Aboriginal consultation, and Traditional Land Use (TLU) and traditional knowledge (TK) studies in Canada, with extensive experience working in the Northwest Territories. Ms. Birnie has conducted socioeconomic baseline data collection, and contributed to the development of socioeconomic impact assessments, management plans, and monitoring plans. Ms. Birnie has conducted interviews for TLU studies, qualitatively analysed the results of interviews, and contributed to the preparation of reports summarizing the potential impacts of proposed oil sands projects on traditional land use. She has provided input to TLU and TK study design, scope, and methodology, and provided senior review of TLU and TK studies and reports. Ms. Birnie has led and participated in the design and implementation of Aboriginal consultation and public participation programs for environmental assessments, provided facilitation services, and conducted follow-up reporting for these programs. She also provides advisory services to First Nations to assist them in developing consultation processes and implementing these with industry proponents. With regard to effects management, Ms. Birnie recommends industry-standard, best practice, and innovative measures and solutions to stakeholders and proponents to manage project effects and respond to issues and concerns arising from socio-economic impact assessments, consultation processes, and TLU and TK studies.

Relevant samples of Ms. Birnie's work include:

- Provided socio-economic technical advisory services to the Environmental Impact Review Board (EIRB), NWT, for the environmental review of the proposed Inuvik to Tuktoyaktuk Highway. This included co-authoring the Terms of Reference (ToR) for the environmental assessment, reviewing the EIA for conformity with the ToR, producing Information Requests (IRs) and reviewing the responses for adequacy, preparing for and participating in Technical Sessions with the Developer and Parties, participating in Public Hearings in Inuvik and Tuktoyaktuk, and contributing to the Panel's Final Report (2010-2013)
- Provided input to the content and conduct of the Socio-economic Impact Assessment (SEIA) for the Mackenzie Gas Project, NWT. This included conducting

stakeholder engagement meetings in several NWT communities, managing the production of community-specific SEIA reports, and responding to information requests (2003-2008)

- Contributed to the development of the Socioeconomic Management Plan and Socio-economic Effects Monitoring Plan for the Mackenzie Gas Project, NWT (2006-2008)
- Prepared presentations, speaking notes, and background information for SEIA-related Joint Review Panel hearings and has provided support to witness panels during SEIA-related hearing topics for the Mackenzie Gas Project, NWT (2006-2008)
- Conducted baseline data collection and prepared the baseline report, and completed assessment scoping exercises for the proposed Ajurak Offshore Drilling Project, NWT (2010).
- Reviewed and provided input to the Environmental Assessment, and supervised the planning and organization of the Aboriginal Consultation and Public Participation program for the Ajurak Offshore Seismic Program, NWT (2007)
- Led the design and implementation of Aboriginal consultation programs for several different resource development projects in Alberta, including electrical transmission, natural gas, oil sands, wind energy, and hydro development projects (2008-2010)
- Conducted interviews for TLU studies for First Nations and Metis communities, and contributed to the preparation of reports summarizing the impacts of proposed oil sands projects on traditional land use, including aspects of livelihood and culture (2010-2012)
- Conducted a training workshop for the Nunavut Impact Review Board (NIRB) on how to better incorporate TK in NIRB Screenings and demonstrate the consideration of TK in NIRB Screening decisions (2010)
- Provided input to study design, assisted with project management, and provided senior review of TK and TLU study reports for resource development projects in Alberta and British Columbia (2008-2010)

Ms. Abbie Stewart, M.Sc., P.Biol.

Wildlife, Landscape Ecology and Project Management
BSc Ecology, MSc Landscape Ecology

Ms. Stewart is an ecologist with over 10 years of academic and environmental consulting experience in wildlife biology. She has been retained as an expert witness in a hearing, routinely

conducts EIAs, provides third party reviews, leads academic research projects, and gives lectures on wildlife impact assessment. Ms. Stewart's core expertise is in the ecology of moose and other large mammals, and the development of bio-statistical analyses. As a project manager of large multi-disciplinary EIA reviews, she has assimilated information from discipline expert reviewers with a focus on developing integrated reports that address the questions and concerns of either Aboriginal communities or review boards. She earned a Master's degree in Landscape Ecology from the University of Calgary.

Relevant samples of Ms. Stewart's work includes:

- Member and project coordinator of Advisory Team to the Environmental Impact Review Board (EIRB) for the Inuvik-Tuktoyaktuk Highway Project (2010-2013).
- Technical review and expert witness on behalf of the Manitoba Métis Federation with respect to Manitoba Hydro's Bipole III Transmission Project, Manitoba, Canada (2012).
- Lead coordinator and manager of technical review team: Teck Frontier Oil Sands Mine Application (2012), Coal Mine Environmental Assessments in Northern and Southern British Columbia (2011), Ivanhoe Energy SAGD Application (2011), Sunshine West Ells SAGD Application (2010), and others.
- Technical review of: Cenovus Telephone Lake SAGD Application (2012), Suncor North Steepbank Extension Amendment Application (2011), De Beers Gahcho Kue Diamond Mine Application (2011), Diavik Diamond Mine Monitoring Report (2011), Coal Mine Environmental Assessments in Northern and Southern British Columbia (2011), Enbridge Northern Gateway Pipeline Application (2011), Taltson Hydroelectric Expansion Application (2009), and others.
- Project Manager for environmental assessment screening for highway twinning project in northern Alberta – specific work includes coordination of disciplines, wildlife baseline analysis, project-specific effects on valued wildlife species, field data analysis and associated technical writing (2008-2009).
- Team member for environmental impact assessment for resource extraction project in northern Alberta – specific work includes the field work, wildlife baseline data analysis, wildlife modeling, project-specific effects on valued wildlife species, and technical writing (2007-2009).
- Team member for environmental impact assessment for the Mackenzie Valley Pipeline, NWT, Canada – specific work includes the field work, wildlife baseline data analysis, and technical writing (2003-2004).

- Integration of multi-discipline issues and concerns in third party reviews for the Mikisew Cree First Nation GIR, Athabasca Chipewyan First Nation IRC, and Chipewyan Prairie Dene First Nation IRC (2007- current).
- Assisted with biophysical impact assessments for residential developments and highway improvement projects in northern and southern Alberta (2007 – current).
- Involved in technical review of oil sands Terms of References, Environmental Impact Assessments and Approvals - includes associated report writing, report compilation and integration with First Nations issues (2007 – current).
- Conducted wildlife field work in southern Alberta and associated reporting for the Jumpbush Development Project (Wellsite and Pipeline Tie-In) (2002).

Technical Publications, Conferences, & Lectures

Stewart, A., and P.E. Komers. 2012. Testing the ideal free distribution hypothesis: Moose response to changes in habitat amount. *ISRN Ecology*.

Stewart, A. 2006 & 2011. Environmental Science 401. Guest Lecturer, University of Calgary, Alberta.

Stewart, A., P.E. Komers, and D.J. Bender. 2010. Assessing landscape relationships for habitat generalists. *Ecoscience* 17(1): 28-36.

Komers, P.E, A. Stewart, S. Gavin, S. Hechtenthal, T. Whidden and Z. Stanojevic. 2010. Participatory Management in the Canadian Oil Sands. Proceedings of the 2010 IAIA Conference.

Stewart, A. 2007. The influence of landscape resource heterogeneity on ungulates. Oral presentation at the US Chapter of the International Association of Landscape Ecology, Tucson, AZ, USA (April 9-13th, 2007).

Stewart, A. 2007. On Ungulate Resource Use in a Mosaic Landscape. Poster presentation at the Alberta Chapter of the Wildlife Society, Canmore, Alberta (March 18-21st, 2007).

Stewart, A. 2006. The Effect of Landscape Scale Disturbance on the Abundance and Distribution of Ungulates. Prairie University Biological Symposium, University of Calgary, Alberta.

Dr. Petr Komers, Ph.D., P. Biol.

Terrestrial Ecology and Landscape Scale Effects Analysis

BSc Biology, MSc and PhD Ecology

Dr. Komers is a biologist with over twenty years of experience in a wide range of ecological projects through academia and consulting in Canada and internationally. He has led multi-disciplinary scientific reviews of environmental impact studies in the Alberta, Northwest Territories and Alaska particularly relating to the quantification of cumulative effects of large regional developments. He advised industry and governments on assessment, monitoring and analysis of wildlife disturbance in eight countries. He has produced comprehensive environmental reports and management plans and has published research in scientific journals. He has spent well over 1000 hours as an expert witness in regulatory hearings and workshops, applying his extensive experience in disturbance to ecosystems, environmental assessment approaches, and the design and implementation of follow-up programs for wildlife populations and habitat. Samples of Dr. Komers' project experience include:

- Scientific Advisor to the Environmental Impact Review Board, Inuvialuit Settlement Region, NWT, for the Inuvik to Tuktoyuktuk Road development, 2010 to current.
- Scientific Advisor (wildlife) to the Mackenzie Valley Environmental Impact Review Board, the Gahcho Kue mine project and the Taltson Hydroelectric Project, NWT, 2008 to current.
- Technical Advisor on wildlife monitoring for the Environmental Monitoring and Advisory Board, Diavik Diamond Mine, NWT (2003 - current).
- Reviews (wildlife and interdisciplinary integrations) for First Nation Stakeholders in the Oil Sands region, in Saskatchewan, and in Northwest Alberta (2002 - current).
- Wildlife Discipline Lead, Mackenzie Valley Pipeline Project, NWT (2003-2006).
- Review of EIA (wildlife sections) for Snap Lake Diamond Project by DeBeers (2003, North Slave First Nation Association, client).
- Scientific Advisor for the Environment Committee to the Council of the Foothills Municipal District (1998 – 2001).
- Wildlife impact assessment lead for the Parson's Creek Resource Extraction Project, Alberta (2004 - current).
- Wildlife impact assessment lead for the PDUS Donlin Creek Mine Project, Alaska (2004).
- Wildlife habitat and vegetation mapping in the Mackenzie Delta (2001).
- University: Lectures and presentations on the application of TEK in environmental assessments; research on landscape scale disturbance effects on large mammals.

- Expert witness for development proposals and specialist reviewer of scientific papers and species recovery plans.

Technical Publications

Over 40 peer reviewed and popular publications in the areas of ecology, cumulative effects, and conservation, including:

Komers, P.E. and Z. Stanojevic. In press. Rates of Disturbance in the Alberta Boreal Forest: Setting Targets for Conservation Plans. *Global Change Biology*

Komers, P.E., A. Stewart; Shannon Gavin; S. Hechtenthal; T. Whidden; Z. Stanojevic; 2010. Participatory Management In The Canadian Oil Sands. 'IAIA10 Conference Proceedings' Submission ID: 56; The Role of Impact Assessment in *Transitioning to the Green Economy* 30th Annual Meeting of the International Association for Impact Assessment 6-11 April 2010, International Conference Centre Geneva - Switzerland (www.iaia.org)

Komers, P.E. and G.P. Curman. 2000. The Effect of Demographic Characteristics on the Success of Ungulate Re-introductions. *Biological Conservation* 92: 187-193

Komers, P.E. 2002. Non-Linear Responses Of Ecosystem Components To Provide Threshold Values For Cumulative Effects Management. Proceedings of the Cumulative Effects Management Conference, Calgary.

Cost Estimates

We have prepared this Scope of Work to reflect the level of effort we expect is needed to adequately review relevant sections of the PDP and produce the deliverables indicated above. We will provide expert analysis and comment and plain-language briefings and advice for use by the MMF. All team members have been allotted time for internal MSES team meetings and internal communications. We note the following stipulations for our estimate:

- The Scope of Work and Cost Estimate are preliminary estimates only and may require refinement upon receipt of final PDP expected in August 2013.
- No ancillary information outside of those listed herein will be reviewed. Any ancillary information that requires review will require additional scoping and budgeting.
- Actual costs may vary by up to 5%; should more work be required as determined by the reviewers, the client will be notified prior to conducting the additional work.
- GST is not included in the cost estimates.
- Only electronic copies of the final MSES response report will be supplied to the MMF.

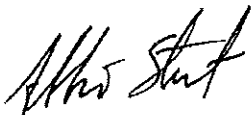
- Travel expenses will be billed at cost and based on hourly personnel rates.
- Hearing preparation and attendance may require re-scoping pending outcome of technical review and once requirements are better understood.

• **Estimated Budget:**

Document Review, Development of IRs and Overarching Report, Hearing Preparation				
Discipline	Personnel	Rate	Hours	Cost Subtotal
Review relevant environmental and socio-economic sections of Preferred Development Plan (PDP) and prepare Round 1 Information Requests	Abbie Stewart	\$135	56	\$7,560
	Meghan Birnie	\$165	132	\$21,780
	Assistant	\$70	8	\$560
Review relevant environmental and socio-economic IR Responses and prepare Round 2 Information Requests	Abbie Stewart	\$135	24	\$3,240
	Meghan Birnie	\$165	72	\$11,880
	Assistant	\$70	4	\$280
Prepare final report identifying gaps and providing recommendations	Abbie Stewart	\$135	24	\$3,240
	Meghan Birnie	\$165	44	\$7,260
	Assistant	\$70	16	\$1,120
Hearing preparation & attendance	Abbie Stewart	\$135	48	\$6,480
	Meghan Birnie	\$165	48	\$7,920
	Assistant	\$70	16	\$1,120
Sub-total Document Review, Development of IRs & Final Report				\$72,440
Administration and Project Management				
Project Management, Administration & Liaising with Manitoba Metis and Legal	Abbie Stewart	\$135	56	\$7,560
	Senior Technical Advisor	Petr Komers	\$200	28
MSES Internal Team Meetings	All	Varies	16	\$1,710
Sub-total Meetings, Administration, Project & Document Management				\$14,870
Hearing Travel Expenses (airfare, hotel, & taxi; 2 people; 2 days)				\$2,000
Total Cost Estimate				\$89,310

Please feel free to contact me at your convenience with any questions or comments you may have. We look forward to the opportunity to work with you on this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Abbie Stewart', written in a cursive style.

Abbie Stewart, M.Sc., P.Biol.
MSES Inc.

CC. Petr Komers, Ph.D., P.Biol, President MSES Inc.
Meghan Birnie, M.A.

Schedule C

Document Review, Development of IRs and Overarching Report, Hearing Preparation				
Discipline	Personnel	Rate	Hours	Cost Subtotal
Review relevant Preferred Development Plan (PDP)	Gerry Barron	\$125	24	\$3,000
Participation in technical conferences	Gerry Barron	\$125	16	\$2,000
Prepare Round 1 Information Requests	Gerry Barron	\$125	24	\$3,000
Review relevant IR Responses from Manitoba Hydro	Gerry Barron	\$125	24	\$3,000
Review evidence filed by other interveners	Gerry Barron	\$125	8	\$1,000
Preparation of Round 2 Information Requests	Gerry Barron	\$125	24	\$3,000
Review of responses and evidence filed by other interveners	Gerry Barron	\$125	16	\$2,000
Prepare final report identifying gaps and providing recommendations	Gerry Barron	\$125	16	\$2,000
Attendance at community hearing	Gerry Barron	\$125	8	\$1,000
Hearing preparation, evidence review & attendance at hearings	Gerry Barron	\$125	120	\$15,000
Sub-total Document Review, Development of IRs & Final Report				\$35,000
Administration and Project Management				
Project Management, Administration & Liaising with Manitoba Metis Federation, Legal Counsel and other consultants retained by the MMF	Gerry Barron	\$125	40	\$5,000
Sub-total Meetings, Administration, Project & Document Management				
Community Hearing Travel Expenses (airfare, hotel, car rental; 1 person, three days, 1 trip)				\$2,000
Total Cost Estimate				\$42,000

Document Review, Development of IRs and Overarching Report, Hearing Preparation				
Discipline	Personnel	Rate	Hours	Cost Subtotal
Review relevant Preferred Development Plan (PDP)	Rick Hendriks	\$125	40	\$5,000
Research concerning key issues	Rick Hendriks	\$125	24	\$3,000
Participation in technical conferences	Rick Hendriks	\$125	8	\$1,000
Prepare Round 1 Information Requests	Rick Hendriks	\$125	16	\$2,000
Participation in community hearings	Rick Hendriks	\$125	24	\$3,000
Review relevant IR Responses from Manitoba Hydro	Rick Hendriks	\$125	16	\$2,000
Review evidence filed by other interveners	Rick Hendriks	\$125	16	\$2,000
Preparation of Round 2 Information Requests	Rick Hendriks	\$125	8	\$1,000
Review of responses and evidence filed by other interveners	Rick Hendriks	\$125	8	\$1,000
Prepare final report identifying gaps and providing recommendations	Rick Hendriks	\$125	20	\$2,500
Hearing preparation, evidence review & attendance at hearings	Rick Hendriks	\$125	80	\$10,000
Sub-total Document Review, Development of IRs & Final Report				\$32,500
Administration and Project Management				
Project Management, Administration & Liaising with Manitoba Metis Federation, Legal Counsel and other consultants retained by the MMF	Rick Hendriks	\$125	40	\$5,000
Sub-total Meetings, Administration, Project & Document Management				
Community Hearing Travel Expenses (airfare, hotel, car rental; 1 person, three days, 1 trip)				\$2,000
Hearing Travel Expenses (airfare, hotel, & taxi; 1 person, 2 days, two trips)				\$3,000
Total Cost Estimate				\$42,500

Document Review, Development of IRs and Overarching Report, Hearing Preparation					
Discipline	Personnel	Rate	Hours	Cost Subtotal	
Review relevant environmental and socio-economic sections of Preferred Development Plan (PDP) and prepare Round 1 Information Requests	Abbie Stewart	\$135	56	\$7,560	
	Meghan Birnie	\$165	132	\$21,780	
	Assistant	\$70	8	\$560	
Review relevant environmental and socio-economic IR Responses and prepare Round 2 Information Requests	Abbie Stewart	\$135	24	\$3,240	
	Meghan Birnie	\$165	72	\$11,880	
	Assistant	\$70	4	\$280	
Prepare final report identifying gaps and providing recommendations	Abbie Stewart	\$135	24	\$3,240	
	Meghan Birnie	\$165	44	\$7,260	
	Assistant	\$70	16	\$1,120	
Hearing preparation & attendance	Abbie Stewart	\$135	48	\$6,480	
	Meghan Birnie	\$165	48	\$7,920	
	Assistant	\$70	16	\$1,120	
Sub-total Document Review, Development of IRs & Final Report				\$72,440	
Administration and Project Management					
Project Management, Administration & Liaising with Manitoba Metis Federation, Legal Counsel and other consultants retained by the MMF	Abbie Stewart	\$135	56	\$7,560	
	Senior Technical Advisor	Petr Komers	\$200	28	\$5,600
	MSES Internal Team Meetings	All	Varies	16	\$1,710
Sub-total Meetings, Administration, Project & Document Management				\$14,870	
Hearing Travel Expenses (airfare, hotel, & taxi; 2 people; 2 days)				\$2,000	
Total Cost Estimate				\$89,310	

Document Review, Development of IRs and Overarching Report, Hearing Preparation				
Discipline	Personnel	Rate	Hours	Cost Subtotal
Review relevant Preferred Development Plan (PDP)	Patt Larcombe	\$135	8	\$1,080
Prepare Round 1 Information Requests	Patt Larcombe	\$135	8	\$1,080
Hearing preparation, evidence review & attendance at hearings	Patt Larcombe	\$135	16	\$2,160
Sub-total Document Review, Development of IRs & Final Report				\$4,320
Administration and Project Management				
Project Management, Administration & Liaising with Manitoba Metis Federation, Legal Counsel and other consultants retained by the MMF	Patt Larcombe	\$135	16	\$2,160
Sub-total Meetings, Administration, Project & Document Management				
Hearing Expenses (printing, parking)				\$500
Total Cost Estimate				\$6,980

Schedule D

Per the NFAT Procedural Order on Intervener Status with respect to the Public Utilities Board's NFAT review of Manitoba hydro's Preferred Development Plan to construct the Keeyask and Conawapa generating stations and associated transmission facilities the Manitoba Metis Federation submits the following definition of "Macro-Environmental". The Manitoba Metis Federation recognizes that the PUB will review the submissions made by each of the interveners and the definition provided by Manitoba Hydro and will then clarify the interpretation to be given to this factor.

Macro Environmental Impact

Since the only use of the term "Macro-Environmental" is in relation to the "impact" of the plan compared to the alternatives, the Manitoba Metis Federation has considered this term in its more complete form of macro-environmental impact in order to better determine its intended meaning.

Recommended definition of "Macro-Environmental Impact"

"..the collective adverse changes to the air, land, water, flora and fauna, including the potential significance of these changes, their equitable distribution within and between present and future generations, and their implications for ecological processes, biodiversity and life support systems of the environment".

Explanatory notes:

1. The term "impact" is somewhat nebulous and could include either both beneficial and adverse changes or only adverse changes. The use of the phrase "socio-economic impacts and benefits" in 2(h) of the Terms of Reference suggests that the term "impact" in 2(i) was intended to refer only to adverse changes. The term is also singular not plural, which suggests that there was an intention that the individual adverse effects or changes need to be considered collectively.
2. The term "environmental" appears to be intended to refer to the definition of "environment" contained in the *Sustainable Development Act*, given the references in 1(b) and 2(b) of the Terms of Reference to the Principles of Sustainable Development in the *Act*. This definition of "environment" in the *Act* reads as follows: "'environment" includes air, land, water, flora and fauna".
3. The term "macro" is much less clear. Literally, the term means "very large in scale, scope, or capability". However, limiting the consideration of impact only in relation to "scale, scope or capability" may be somewhat narrow considering the requirement in the Terms of Reference to assess the "alignment of the Plan and alternatives to ... the Principles of Sustainable Development as outlined in the *Sustainable Development Act*", which involve: management for equitable benefit within and between generations (Principle 2 – Stewardship, and Principle 3 – Shared Responsibility and Understanding); significant adverse environmental effects (Principle 4 – Prevention), where significance typically refers to effects that are not only large in "scale, scope or capability" but that are also, for example, of long duration or irreversible; and the need to maintain ecological processes, biodiversity and life support systems of the environment (Principle 5 – Conservation and Enhancement), which suggests the need for consideration of impact of the plan and its alternatives in the context in which they would occur, suggesting the need for consideration of cumulative environmental changes.

4. In summary, in order for the assessment to take into consideration "alignment of the Plan and alternatives to ... the Principles of Sustainable Development", "macro environmental impact" cannot refer to a "high level summary of environmental impacts and benefits sufficient to compare resources (not detailed evaluations such as an EIS)" as suggested by Manitoba Hydro in the pre-conference hearings (at p.48).

First, it does not appear that the term "impact" was intended to refer benefits at all else the term "benefit" would have also appeared in 2(i) of the terms of reference as it does in 2(h).

Second, a "high level" consideration is not implied by the term "macro" which refers to the nature of the impact on the environment not the extent of the analysis required to determine that impact. In other words, though the "detailed evaluations such as an EIS" may not be required, a "high level summary" will not address the requirements of the Principles of Sustainable Development, particularly in relation to matters of significance, equity and maintenance of ecological processes, biodiversity and life support systems of the environment.

Third, no "summary" is specifically implied by the term "macro-environmental impact". Although the singular nature of the term "impact" does suggest that the entirety of the collective changes are to be presented for comparison. The use of a "summary" implies a summation of the environmental changes. In general, this will not be possible since the kinds of environmental changes will be different between the Plan and the alternatives and cannot simply be "summed" for the Plan and the alternatives and the end results readily compared. As such, we are proposing the term "collective" in the definition, which implies a bringing together of the environmental changes where their characteristics are maintained. In plain language, if the environmental changes of the Plan and the alternatives could be considered as different kinds of food, we propose that they be presented as on a banquet table, rather than that their summed caloric value, protein quantity, etc. be presented, as suggested by Manitoba Hydro.

With regard to assessing the macro-environmental impact of the plan compared to the alternatives and based on the definition provided above, Mr. Hendriks will focus his efforts on the following specific items:

- Methodologies for defining, categorizing and comparing the adverse environmental changes that compose the macro-environmental impact;
- Consideration of management of the environment for the equal benefit of present and future generations, as indicated by principle 2(1) of the Principles for Sustainable Development;
- Consideration of caring for the environment for the benefit of present and future generations, as indicated by principle 2(2) and 3(4) of the Principles for Sustainable Development;
- Consideration of anticipation, prevention and mitigation of the significant adverse environmental effects of the Plan and its alternatives, as indicated by principle 4 of the Principles for Sustainable Development;
- Consideration of adverse environmental changes that are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being, as indicated by principle 4 of the Principles for Sustainable Development.

- Consideration of the maintenance of ecological processes, biological diversity and life support systems of the environment, the potential for sustainable yield of harvestable renewable resources, efficient use of renewable and non-renewable resources, and enhancement of the long-term productive capability, quality and capacity of natural ecosystems, as indicated by principle 5 of the Principles for Sustainable Development.
- Consideration of the potential for rehabilitation and reclamation of the adverse environmental changes associated with the Plan and its alternatives, as indicated by principle 6 of the Principles for Sustainable Development.
- Consideration of other aspects of the Principles of Sustainable Development as the evidence and information presented during the NFAT Review may require.

With regard to assessing the macro-environmental impact of the plan compared to the alternatives and based on the definition provided above, Ms Stewart and Ms. Birnie of MSES Inc will adopt the definition of macro environmental impacts for the review as provided above and will focus their efforts on the following specific items:

Under this definition, MSES will review the PDP with respect to the following:

- Consideration of the approach and methods used to identify, assess, and compare adverse cumulative environmental effects on traditional resources of the MMF.
- Consideration of practical plans to manage and mitigate cumulative impacts to traditional resources of the MMF.

Per the NFAT Procedural Order on Intervener Status with respect to the Public Utilities Board's NFAT review of Manitoba hydro's Preferred Development Plan to construct the Keeyask and Conawapa generating stations and associated transmission facilities the Manitoba Metis Federation submits the following definition of "Socio Economic Impacts". The Manitoba Metis Federation recognizes that the PUB will review the submissions made by each of the Interveners and the definition provided by Manitoba Hydro and will then clarify the interpretation to be given to this factor.

Socio-Economic Impact

Recommended Definition of 'Socio-Economic Impact':

"...The consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society."¹

Explanatory Notes:

1. Economic Impacts.

Increased economic activity can be a driver of social and cultural change, particularly in aboriginal populations and small communities that have a mixed wage and traditional economy.² A thorough analysis of the economic change that a proposed development is likely to cause is essential to Socio-economic Impact Assessment (SEIA). In the context of aboriginal communities, this analysis must include impacts on the wage and traditional economies.

2. Social Impacts:

There are many drivers of Social Impacts. The scope of the SEIA must not be limited to assessing social impacts caused by direct economic effects of the proposed development (i.e. employment).

Social Impacts can be conceptualized as changes to one or more of the following:

- people's way of life – that is, how they live, work, play and interact with one another on a day-to-day basis;
- their culture – that is, their shared beliefs, customs, values and language or dialect;
- their community – its cohesion, stability, character, services and facilities;
- their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose;

¹ Definition put forth by "The Interorganizational Committee on Principles and Guidelines for Social Impact Assessment" and provided in Rabel J. Burdige and Colleagues, *The Concepts, Process and Methods of Social Impact Assessment*, 2004, p.81.

² MVEIRB, *Socioeconomic Impact Assessment Guidelines*,
http://www.reviewboard.ca/upload/ref_library/SEIA_Guidelines_Chapter_2.pdf

- their environment – the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- their health and wellbeing – health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity;
- their personal and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties;
- their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.³

3. The Socio-economic Impact Assessment:

A properly conducted assessment will answer the following questions:

- What will happen if a proposed action were to be implemented – why, when, and where?
- Who is being affected?
- Who benefits and who loses?
- What will change under different alternatives?
- How can adverse impacts be avoided and mitigated, and benefits enhanced?⁴ (Taylor et al., 2004, Wolf, 1980, p.4 in the above-cited reference).

Impacts depend on interactions between characteristics of (1) the project, (2) any mitigation, (3) the community (i.e. vitality, viability, resilience, impact history), and (4) individuals. Impacts are not stable, and impacts differentially affect people.⁵

With regard to assessing the socio economic impact of the plan compared to the alternatives and based on the definition provided above, Ms Birnie and Ms Stewart will focus their efforts on the following specific items:

It is assumed that the SEIA will include an assessment of impacts on typical Valued Socio-economic Components (VCs), including the following:

- Demographics
- Local and Regional Economies (including local procurement and employment effects)
- Education, Training, and Skills

³ International Association of Impact Assessment (IAIA), *Social Impact Assessment*, http://www.iaia.org/iaia/wiki/sia.ashx#What_are_social_impacts_1

⁴ Taylor et al., 2004, Wolf, 1980, in Rabel J. Burdige and Colleagues, *The Concepts, Process and Methods of Social Impact Assessment*, 2004, p.4.

⁵ Course Materials, "Social Impact Assessment and Management", Training Course offered by Community Insights Group at IAIA 2013 Conference.

- Infrastructure and Institutional Capacity
- Human Health and Community Wellness (including individual and family wellness)
- Land Use
- Socio-cultural Patterns
- Heritage Resources
- Others as may be appropriate

The MMF will review the assessment on the above (or similar) VCs, focusing on the extent to which the SEIA assesses the potential impacts of the project on the Metis, and whether the methods used allow for an accurate assessment of the impacts and the identification of effective mitigation. Given this, the MMF will review the following specific items:

- Methods:
 - The selection of VCs is justified and is relevant to potentially-affected Metis;
 - The indicators used are relevant and appropriate to potentially-affected Metis.
 - Whether potentially-affected Metis were involved in, or provided input to, the selection of VCs, the identification of indicators, the assessment results, and the determination of significance, and an explanation of how their input was used.
- Change in the environment that alters land use can be anticipated to have concomitant economic (i.e. traditional economy), social, and cultural effects. The MMF will review the extent to which the SEIA gives consideration to, and provides an accurate assessment of, potential economic, social, and cultural effects, as these may or may not be felt uniquely by the Metis, that stem from potential changes in land use. This will include a review of suggested measures to mitigate these effects to determine whether these are appropriate and can be anticipated to be effective.
- In Aboriginal communities that are mixed wage and traditional economy, anticipated economic effects, as well as social and cultural impacts, are often identified during the conduct of a Traditional Land Use and Knowledge Study (TLUKS). The MMF will review the extent to which efforts were made to incorporate information from the TLUKS into all aspects of the SEIA, which could be expected to result in a more accurate assessment of the impacts on the Metis. (If the TLUKS is not complete at the time the PDP is submitted, the MMF will review how the proponent proposes to use information from the TLUKS when this is available).

Given that Manitoba Hydro has entered into agreements with some First Nations the MMF will review the SEIA seeking to understand how Manitoba Hydro proposes to mitigate impacts on the Metis, some of which may be uniquely felt, and provide benefits to the Metis, without such an agreement.

As the principal researcher on the Traditional Land Use and Knowledge Study (TLUKS) and socio economic baseline study currently being undertaken by the Manitoba Metis Federation, Ms. Larcombe is in the unique position of collecting the first hand experiences and details related to both traditional use in the area likely to be impacted by the project but also on the impacts of the projects themselves. With regard to assessing the socio-economic impacts of the plan compared to the alternatives and based on the definition provided above, Ms. Larcombe will focus her efforts on working in conjunction with Ms. Stewart and Ms Birnie to ensure that the information provided by harvesters in the Manitoba Metis community is collected and analyzed as appropriate for the NFAT hearing process.