

MANITOBA HYDRO NEEDS FOR AND ALTERNATIVES TO (NFAT) –
MIPUG SUBMISSION TO THE MANITOBA PUBLIC UTILITIES BOARD (PUB)
IN RESPONSE TO ORDER 67/13

INTRODUCTION TO MIPUG NFAT INVOLVEMENT

The Manitoba Industrial Power Users Group (MIPUG) was granted intervener status for the upcoming Needs For and Alternatives To (NFAT) Review in the Public Utilities Board (PUB or Board) Order 67/13. Also included in that Order was the directive for intervenors to file written submissions with the Board on or before June 28, 2013.

MIPUG identified issues of “specific concern” in its Application for Intervention, which the Board found to be within the scope of the NFAT Review. The PUB granted intervener status to MIPUG with the following issues:

- a) Impact on domestic rates, including long term impacts;
- b) Risks to domestic customers through Manitoba Hydro’s investment in subsidiaries, export ventures and new Programs;
- c) Alternatives to Manitoba Hydro’s Preferred Development Plan including demand side management programs; and
- d) Risks including long term financial and economic risks and the financial liability of Manitoba Hydro.

This submission sets out MIPUG’s expected NFAT activities, MIPUG’s priorities with respect to the OIC-established scope, and MIPUG’s plan to avoid overlap and duplication in the hearing. This submission includes the following topics:

- 1) Definitions per Board Order 67/13 Section 4.3.0 and 4.4.0.
- 2) Intervention Plan per Board Order 67/13 Section 4.2.0.
- 3) Draft Budget (under separate cover) per Board Order 67/13 Section 4.2.0.

DEFINITION OF TERMS

In Order 67/13 the PUB requested that each party that intends to address Scope items 2(i) submit a definition of “macro-environmental”, and those that expect to address scope items 2(h) or 2(j) to provide a definition of the term “socio-economic impacts and benefits”, together with a detailed list of all the specific items proposed to be included in their evidence on the topic, with clarification on the interpretation to be given by the Board.

Macro-Environmental - MIPUG does not expect to participate in any material way in this section of the NFAT review, nor to call evidence on this matter. However, there are two items of concern that arise with respect to overlap between environmental issues and financial and rate risks which could be of concern to MIPUG. MIPUG's intention is that there would be no need for MIPUG cross-examination on these matters on the assumption that other parties with a more significant interest would fully canvass the issues.

With respect to the two items of concern to MIPUG, the following definition will establish MIPUG's perspective in relation to evaluating MH's proposed development plan and alternatives:

Macro-Environmental impacts with respect to MIPUG's concerns focus on:

- a) The risks of each plan in respect of failing to receive environmental approvals and licenses, or receiving environmental approvals and licences that include terms that are adverse to the plan's assumed financial performance, or introduce new unintended financial risks (i.e. are there environmental factors that may risk approvals or cause alteration to the plan as it is presently conceived by Manitoba Hydro?).
- b) Risks during the operation phase of any plan that there may be environmental terms and conditions imposed (either based on the plant's individual performance, or based on new or updated standards and legislation) that could adversely affect the energy output and performance, and/or the financial performance of the facilities. For example, what are the risks that the plant may have to adaptively amend its operations to address future unanticipated environmental conditions related to matters such as erosion or fish population (species at-risk)?

Socio-Economic Impacts and Benefits – MIPUG does not propose to intervene or call evidence on item 2(h) which relates to the socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities. Individual MIPUG members may address this issue as part of their presentations, focused on the downstream benefits of plans that provide lower and/or more stable rates in terms of northern development, jobs, investment, training, etc.

MIPUG's view on item 2(j) is that this item is structured as the ultimate over-arching test of Hydro's plan. In this context socio-economic would generally be understood to encompass all impacts on people. Item 2(j), in short, seeks the Board's views on which plan is best, in respect of all impacts on the people of Manitoba.

In this regard, MIPUG views effectively all hearing activity as relating to, and informing the Board in regard to, item 2(j).

MIPUG PLAN FOR INTERVENTION

MIPUG's plan for its intervention in the NFAT proceeding, and the associated budgets, reflect the following matters:

- 1) MIPUG assumptions regarding the hearing process;
- 2) MIPUG's expected scope and priorities;

- 3) MIPUG's work to date at coordination and hearing preparation; and
- 4) Draft Intervention Plan, reflecting the above information.

Each of these is addressed below.

Activities and expectations set out below and in the attached budget are subject to revision upon review of the final PUB Hearing Schedule, Manitoba Hydro's NFAT filing, the breadth and expertise of the Independent Expert Consultants to be hired by the Board, and the range (if any) of 3rd party experts Manitoba Hydro plans to call to supplement its corporate testimony. This could include re-prioritization of issues, a potential for addition of new issues, or a reduction in MIPUG's scope based on thorough examination already having been presented in Manitoba Hydro's materials and documents, or in other parties' hearing plans.

1. MIPUG ASSUMPTIONS

In preparation of this document MIPUG made the following basic assumptions for determining the areas and degree of involvement for the NFAT Review:

- 1) **Hydro Evidence:** Manitoba Hydro (MH) has the onus to defend its case and field a full panel to defend all areas of the plan. In areas of critical information that is hard to decipher from single source, or for areas of highly specialized skills (e.g., MISO market conditions, capital cost forecasting), as per past practice MH may be expected to provide third party evidence and testimony in addition to its own submission¹.
- 2) **PUB Independent Experts:** The PUB is expected to call Independent Experts (IE), consistent with the Request for Qualifications issued in June (closing June 28, 2013). This includes a wide range of topic area specialists. MIPUG assumes the ability to review the IE reports and cross-examine the IE with respect to all matters which are not Commercially Sensitive during the public portion of the proceeding.
- 3) **Schedule:** For the initial sake of budget planning, MIPUG has used the draft NFAT timetable that was circulated by the PUB as Appendix B in the IE Request for Qualification for an outline of expected events and timeframes.
- 4) **Commercially Sensitive Information:** Among the witnesses to be presented, only the MH witnesses, any 3rd party witnesses retained by MH, and the PUB's independent experts will have access to the Commercially Sensitive Information.
- 5) **Other Intervenors:** Other interveners, including the Consumers Association (CAC) and the Green Action Center (GAC), are expected to fully field all required intervener witnesses on the specialist areas of (1) US/MISO market conditions and (2) DSM and fuel switching (with the possible exception of natural gas fuel switching opportunities).

¹ Past examples include Manitoba Hydro's use of 3rd party experts KPMG and ICF in the risk hearing, regarding areas of risk management, export contracts, reliability of computer models and resource planning; use of depreciation expertise in the 2012-14 GRA; and, use of expertise on DSM in the 1990 PUB NFAT, and the CEC Wuskwatim NFAT processes.

- 6) **Curtable Rates and other Industrial Load Management:** Board Order 43/13 indicated a further review of MH Curtable Rates program was to occur as part of the NFAT proceeding. MIPUG has assumed this will be included in the scope of the review.
- 7) **Hearing Length:** The Board’s schedule sets out 10 weeks for the hearing to occur (February 24 to May 2) MIPUG has assumed for budgeting and scoping purposes that the ten week hearing will include 45 hearing days including the “in camera” portion and final arguments being presented within this time frame (the remainder of the 10 weeks period would be statutory holidays, argument preparation days, etc.).

2. MIPUG EXPECTED SCOPE AND PRIORITIES

In evaluating the extent of involvement MIPUG plans for each of the areas in scope the following structure has been adopted:

- Priority 1: Critical to MIPUG assessment of NFAT;
- Priority 2: MIPUG to consider and review – may affect final recommendations to PUB;
- Priority 3: Largely unrelated to MIPUG recommendations.

On priority 1 topics, MIPUG has broken these out into those that MIPUG expects it will “pursue” throughout the hearing with possible expert witness testimony and cross-examination of Manitoba Hydro and other intervener witnesses, as compared to those where MIPUG is willing to take a “secondary role” which assumes limited need to pursue in cross examination, so long as the assumption that the PUB and other interveners will fully explore these topic areas and the necessary information.

Priority 1- MIPUG to Pursue	Priority 1 – Potential Secondary Role	Priority 2	Priority 3
1a, 1c, 2a, 2e, 2f, 2g	1d (expected cooperation with CAC re: inputs), 2c and 2d (reliance on PUB experts and CAC witness re: MISO)	1b, 2b	2h, 2i

As noted above item 2(j) is considered to be all-encompassing and is not separately addressed.

MIPUG has not yet developed a detailed issues list related to the filing materials, and will not be able to complete this task until after the August 16 filing and some portion of the discoveries have been completed. Subject to this review, two of the primary issues expected to be of concern for MIPUG at the outset are as follows:

- 1) **Base Case:** The plan is understood to be structured to fulfill both domestic supply requirements as well as to pursue identified market opportunities. Has Hydro properly prepared a full and defensible “base case” Resource Plan focused on domestic requirements, before proceeding to larger opportunity-driven plans? Has Hydro properly considered a comparison of the characteristics, such as rate impacts and risks, or this base case in comparison to their preferred plan? [Part of scope item 2(a)].

- 2) **Financial Risks:** The plan, along with concurrent major new generation and transmission investment, involves capital spending requirements far in excess of any Manitoba Hydro or even Government of Manitoba borrowing experience (over \$20 billion, or approximately \$20k for every citizen of Manitoba, a full 40% of Manitoba annual GDP). In the assessment of risks of the project, has Hydro fully considered the implications to ratepayers of the sheer magnitude of this level of outlay (over and above the forecasts of financial performance)? [Part of scope item 2(e)].

Other major areas will be identified as the hearing progresses.

3. MIPUG PREPARATION TO DATE

To date MIPUG has had several preliminary meetings in preparation for the NFAT Review, with three main areas of focus:

- Consultation with other General Service customers and groups in Manitoba;
- Assessing areas of common interest and intervention with other interveners; and
- Procuring potential expert witnesses to aid in the review and intervention of Manitoba Hydro's NFAT filing.

The following sections highlight activities in each area.

CONSULTATION WITH OTHER GENERAL SERVICE CUSTOMERS AND GROUPS IN MANITOBA

In Board Order 67/13 the Board directed MIPUG to consult with other groups representing General Service (GS) customers of Manitoba Hydro. MIPUG has held discussion with a variety of groups, and confirms it can fulfill the Board's requirement. Two groups have been identified as having relevant membership and a likely or confirmed interest in the NFAT proceeding:

1. **The Manitoba Chambers of Commerce** – MIPUG held discussions with the Manitoba Chambers of Commerce regarding potential consultation on the NFAT issues. The Manitoba Chambers is the umbrella organization for Manitoba's chamber movement with 63 local branches and over 400 direct corporate members. The two parties have since developed a consultation plan that entails NFAT updates, routine briefings, and MIPUG assistance in the event the Chamber desires to access the PUB to speak directly to an issue. The draft consultation activities are detailed in Appendix A to this submission. In general, the Manitoba Chambers provides an effective mechanism to reach representatives of businesses of all sizes in Manitoba, with a wide range of interests.
2. **Manitoba Hydro Major Accounts Customer Advisory Group** – MIPUG has been made aware that Manitoba Hydro maintains a Major Accounts Customer Advisory Group. This group is comprised of a sample of customers who are among the larger Manitoba Hydro customers, but who are typically smaller than MIPUG members (mostly in the GSL <30 kV and GSL 30-100 kV with some GSM customers). It is MIPUG's understanding that this group is made up of companies who view power costs and issues as important to their operations, and as a result have chosen to participate in this group with MH. The next meeting of the Customer Advisory Group is planned for late summer 2013. MIPUG has spoken with the employees at Manitoba Hydro that organize

this group and a plan is in place to provide MIPUG an opportunity to separately meet with the Customer Advisory Group to provide a short discussion of the NFAT proceeding and the MIPUG consultation options when this group is convened for its next meeting. It is expected that the consultation option offered would be similar to the opportunity provided to the Manitoba Chambers. MIPUG can update the PUB with more details on this after the meeting in the summer, if required.

In each case, it is fully expected that all parties desire that MIPUG will not be authorized to formally represent the consultative groups before the PUB. However, MIPUG has offered the Manitoba Chambers that on specific matters, it may be possible for MIPUG to relay to the PUB the Chambers' perspectives, if so requested by the Manitoba Chambers. On any matter of material importance or substance, it is likely that the Manitoba Chambers would seek to provide their perspectives directly to the Board, either in writing or presentation.

A budget is provided on proposed GS consultations is included (separately identified) in the MIPUG Draft Budget.

MIPUG COORDINATION WITH OTHER NFAT HEARING PARTIES

To date MIPUG has had contact with representatives from CAC, GAC and the Manitoba Metis Federation (MMF).

With CAC and GAC, MIPUG has discussed relevant potential areas of overlap. In particular the following are noted:

- **Consumers Association:** MIPUG understands CAC is planning to lead evidence in certain "specialist" areas, the following of which are of some interest to MIPUG:
 - Specialist evidence re: export market conditions (Gotham).
 - Specialist evidence re: DSM opportunities (Dunsky) particularly as it relates to potential industrial energy efficiency and load management.

Based on the CAC confirmed intention to retain the above specialists, MIPUG is not intending to call evidence in these areas. MIPUG cross examination may be conducted on these witnesses to the extent relevant matters have not been fully canvassed with these witnesses by CAC or the Board.

MIPUG has also discussed with CAC the reality that there are individual requirements of each group in respect of the need for each party to be fully informed and have access to independent utility industry "generalist" expert support. This advisory and assessment role must largely be conducted on an independent basis for each party. Despite this need for individual generalist expert support for each party, CAC and MIPUG have had initial discussions about significant cooperation in two areas.

- First, in regard to Board Scope Item 1(d) (inputs and assumptions), MIPUG and CAC expect that there will not be a need for duplication, and that coordination will be arranged to have only one party address the reasonableness of the major input areas. As an example, it is possible that CAC generalists (e.g., Harper) will lead evidence on the

reasonableness of the load forecast (if required) while MIPUG witnesses (Bowman) will generally avoid such areas except as it relates to specific industrial issues. The specific list of topics will be developed later in the proceeding.

- In respect of the analysis and ultimate conclusions of the generalist witnesses, CAC and MIPUG have confirmed the witnesses will seek to cooperate on helping ensure the fullest understand of the respective experts positions are made available to the Board. In past hearings, this type of coordination has occurred in joint discussions as part of preparing for each party's appearance before the Board. Additional measures may be possible to enhance this coordination (including in areas where differences of views may arise). Possible options for such cooperation may be discussed with all counsel closer to the hearing appearances.
- **Green Action Centre:** With GAC, there are common interests on ensuring reliable inputs to a proper Manitoba-focused base case development plan, including load forecasts reflecting appropriate levels of DSM and potential for "fuel switching"². Other than possible fuel switching opportunities emphasizing natural gas end-use (e.g., heating) over electricity, MIPUG is expecting this area to be fully addressed by GAC (and CAC) witnesses in respect of DSM and fuel switching to other renewable (e.g., solar) and has not assumed a need to call MIPUG-led evidence in this area.

With the MMF, MIPUG understands an intention of MMF is to represent Metis business interests and, within the scope of the NFAT OIC, indicate the socio-economic implications for Metis businesses of the business opportunities and directly negotiated contracts on Hydro projects. MIPUG and MMF did not expect there to be any area of overlap in their interventions on business matters.

4. MIPUG DRAFT INTERVENTION PLAN

On the basis of the above efforts to date, MIPUG has prepared the following draft intervention plan. MIPUG's plan is based on maintaining sufficient involvement to fully inform the members and provide for thorough and comprehensive MIPUG recommendations to the Board at the end of the proceeding. MIPUG does not intend to duplicate efforts of other parties, and expects to minimize its participation in areas where a full and complete examination of the issues can be achieved by other parties with a more significant interest in the topic.

MIPUG has established the need for up to three possible expert witnesses. Until a review of Manitoba Hydro's filed NFAT materials is complete, however, finalization of these witnesses and their areas of testimony cannot be completed. The three witnesses reflect generalist utility expertise, as well as specific specialist input in 1 to 2 areas that do not appear to have been fully canvassed based on MIPUG's understanding of the hearing plans to date. On the specialist matters, it is not expected that the submissions or testimony would be lengthy or require large amounts of hearing time or costs to fully address.

² Fuel switching refers to an area of electricity DSM that has traditionally been avoided by Hydro, by getting current or future electric customers to adopt other fuels to supply their energy needs and thus reduce loads on the electrical system.

These potential witnesses are as follows:

1. **InterGroup Consultants Ltd. (Patrick Bowman)** – InterGroup has been retained to provide advice and support to MIPUG, consistent with InterGroup’s involvement with the group for approximately 25 years. Area of testimony are expected to include the impact of MH’s proposed development plan and development alternatives on domestic rates and long-term impacts, Manitoba Hydro’s approach to resource planning highlighting impacts on industrial and general service customers where possible, and the economic, financial and business risks associated with MH’s plan and different alternatives. Mr. Bowman’s C.V. is attached as Appendix B and regulatory hearing experience as Appendix C. Mr. Bowman has appeared before the Manitoba PUB on six previous occasions, as well as before five other rate and environmental regulators in Canada.
2. **Peter Ostergaard** – Mr. Ostergaard was previously the Assistant Deputy Minister responsible for electricity policy in the British Columbia government, as well as the Chair of the British Columbia Utilities Commission (BCUC). Mr. Ostergaard has been identified as a possible witness in respect of the BC experience in exports and planning for domestic markets over the past decades and today (which is based on a significantly different view of opportunities and export markets than Manitoba Hydro), as well as the role of government energy policy in system planning. Mr. Ostergaard may serve to advise MIPUG on the appropriate approach to utility planning under the current Manitoba situation where there is a relative vacuum on energy policy as compared to BC where government energy policy is significantly (if not overly) pervasive. Mr. Ostergaard brings the benefits of both a regulator and government policy point of view. An indication of the possible areas of testimony of Mr. Ostergaard’s is attached as Appendix D. Mr. Ostergaard’s C.V. is attached as Appendix E.
3. **Senior Representative in Public Sector Finance** – MIPUG, and the other business entities considered for NFAT consultation, have identified financial risks tied to the magnitude of the plan, which in some ways arise regardless as to the essential business case or justification. In particular, an examination may be required of whether the magnitude of borrowing proposed simply exceeds the scale what could reasonably imposed on Manitoba as a province. MIPUG has had initial discussions regarding identifying a potential senior expert in public sector finance to assist in addressing this topic, but has not yet confirmed a candidate. A modest placeholder budget has been included for this possible additional role.

The above witnesses would be supported in their hearing involvement by researchers and analysts from InterGroup.

MIPUG’s anticipated intervention activities are laid out in Table 1 below by each individual item listed in the OIC scope. For example, where table lists “cross-examination” for a witness, this is MIPUG’s expectation that MIPUG will be required to cross-examine on the noted topics.

Table 1: MIPUG Intervention by Terms of Reference Scope and Anticipated Intervention from Other Parties

MIPUG Hearing Activity Plan re: Scope of NFAT Review Sets out MIPUG plans in regards to each item within the PUB's OIC established scope.	MIPUG Priorities	Manitoba Hydro Witnesses	Assumed 3rd Party Evidence/ Witnesses of MH	PUB Independent Experts	Other Intervenor Witnesses	MIPUG Evidence	MIPUG Member Presentations
		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
Scope Item 1. An assessment as to whether the needs for Hydro's Plan are thoroughly justified, and sound, its timing is warranted, and the factors that Hydro is relying upon to prove its needs are complete, reasonable and accurate. The assessment will take the following factors into consideration:							
a. The alignment of the Plan to Hydro's mandate, as set out in Section 2 of <i>The Manitoba Hydro Act</i> .	Priority 1 - Pursue: Over-riding principles	MIPUG to Cross Examine regarding adequacy, economy and efficiency.				InterGroup evidence regarding adequacy, economy and efficiency. Potential evidence of P. Ostergaard., re: relationship between energy policy and utility planning and BC experience with export market pursuits.	Customer perspective re: MH as supplier, partner, adequacy of supply, economy and efficiency.
b. The alignment of the Plan to Manitoba's Clean Energy Strategy and the Principles of Sustainable Development as outlined in <i>The Sustainable Development Act</i> .	Priority 2 - General principles	Potentially through MIPUG Cross Examination				Potential evidence of P. Ostergaard re: relationship between government energy policy and utility planning	

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		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
c. The extent to which the Plan is needed to address reliability and security requirements of Manitoba's electricity supply.	Priority 1 - Pursue	MIPUG to Cross Examine.		Cross Examination on all matters.		InterGroup evidence – focused on security - uncertainty of future load requirements and how to meet forecast uncertainties.	Importance of reliability, security of supply, flexibility.
d. Reasonableness, thoroughness and soundness of critical inputs and assumptions - include planning load forecast/ load scenarios, demand and supply analysis, export expectations and commitments, and DSM and conservation forecasts.	Priority 1 – Potential Secondary Role: Concepts also further addressed under #2 below.	Potential Cross Exam, if not sufficiently addressed by PUB and other intervenors.		Potential Cross Examination on all matters if not sufficiently addressed by PUB and other intervenors.	Potential cooperation with CAC to minimize duplication. Potential cross exam CAC/GAC witnesses on DSM.	InterGroup evidence if required generally, as well as specifically re: industrial forecasts, curtailable rates and other industrial load management options.	Potential industrial customer role in load mgmt.

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		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
Scope Item 2. 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							
a. If preferred and alternative resource and conservation evaluations are complete, accurate, thorough, reasonable and sound;	Priority 1 – Pursue:	Cross Examination	If Hydro calls KPMG or others, cross-exam on conclusions. MH called KPMG to help address this area in risk hearing.	Cross Examination on MH planning process, ID of alternatives, and structure of analysis.		InterGroup evidence re: structure and approach to utility planning, appropriateness of the framework and criteria selected for assessment, and use of an appropriate “base case”.	
b. The alignment of the Plan and alternatives to Manitoba’s Clean Energy Strategy, The Climate Change and Emissions Reduction Act and the Principles of Sustainable Development as outlined in The Sustainable Development Act;	Priority 2 - General principles:	Potential Cross Exam, if not sufficiently addressed by PUB and other intervenors				Potential evidence of P. Ostergaard re: relationship between government energy policy and utility planning.	

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		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
c. The accuracy and reasonableness of the modeling of export contract sale prices, terms, conditions, scheduling provisions, export transmission costs, and the reasonableness of projected revenues;	Priority 1 – Potential Secondary Role: Expected to be focus of experts retained by PUB and CAC.	Potential Cross Exam, if not sufficiently addressed by PUB and other intervenors.	If Hydro calls ICF or others, potential Cross Exam, if not sufficiently addressed by PUB and other intervenors. MH called ICF to help address this area in risk hearing.	Potential Cross Exam re: export market conditions if not sufficiently addressed by PUB and other intervenors.	Potential Cross Exam – Gotham - re: export market conditions if not sufficiently addressed by PUB and other intervenors.		

MIPUG Hearing Activity Plan re: Scope of NFAT Review Sets out MIPUG plans in regards to each item within the PUB's OIC established scope.	MIPUG Priorities	Manitoba Hydro Witnesses	Assumed 3rd Party Evidence/ Witnesses of MH	PUB Independent Experts	Other Intervenor Witnesses	MIPUG Evidence	MIPUG Member Presentations
		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
d. Part 1: The reasonableness of forecasted critical inputs ... construction costs ...	Priority 1 – Potential Secondary Role: Note: Not easily addressed via cross-exam.	Potential MIPUG cross examination if not sufficiently addressed by PUB and other intervenors	Assume Hydro will support its case with 3 rd party expert. If so, potential MIPUG cross exam if not sufficiently addressed by PUB and other intervenors	Potential Cross-exam re: estimates and risks if not sufficiently addressed by PUB and other intervenors			
Part 2: The reasonableness of forecasted critical inputs ... opportunity export revenues, future fuel prices, electricity market price forecasts, the determinants of those values, and export volumes;	Priority 1 – Potential Secondary Role: See part 2(c) above)	See part 2(c) above)	See part 2(c) above)	See part 2(c) above)	See part 2(c) above)		

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		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
e. The reasonableness of the scope and evaluation of risks and the benefits proposed to arise from the development ...	Priority 1 - Pursue: Also expected to be focus of experts retained by PUB.	Cross Examination	MH called ICF and KPMG to help address this area in risk hearing. If Hydro calls KPMG, ICF or others, cross-exam on conclusions.	Cross Examination		InterGroup evidence – focused on assessment of risks of scenarios, approach to risk assessment, interpretation of modelled scenarios. Potential witness (not yet identified) re: public sector finance - risks arising from the sheer magnitude of the plan in relation to provincial economy.	
f. The impact on domestic electricity rates over time with and without the Plan and with alternatives;	Priority 1 - Pursue:	Cross Examination	MH called KPMG for this area in risk hearing. If MH calls KPMG/ others, MIPUG to cross-examine.	Cross Examination		InterGroup evidence on all matters.	Importance and impact of rate changes, implications for customers

MIPUG Hearing Activity Plan re: Scope of NFAT Review Sets out MIPUG plans in regards to each item within the PUB's OIC established scope.	MIPUG Priorities	Manitoba Hydro Witnesses	Assumed 3rd Party Evidence/ Witnesses of MH	PUB Independent Experts	Other Intervenor Witnesses	MIPUG Evidence	MIPUG Member Presentations
g. The financial and economic risks of the Plan and export contracts and export opportunity revenues in relation to alternative development strategies;	Priority 1 - Pursue.	Cross Examination	MH called KPMG for this area in risk hearing. If MH calls KPMG/ others, MIPUG to cross-examine.	Cross Examination		InterGroup evidence, primarily linked to 2(e) above.	Customer tolerance for Hydro risk-taking.
h. The socio-economic impacts and benefits of the Plan and alternatives to northern and aboriginal communities;	Priority 3: MIPUG focused on downstream socio-economic impacts of industrial loads and MB competitive rates						Potential, re: northern industry concerns and impacts
i. The macro environmental impact of the Plan compared to alternatives;	Priority 3: Not area of MIPUG focus.						

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		Parties with access to Commercially Sensitive Information			Parties without access to Commercially Sensitive Information		
j. If the Plan has been justified to provide the highest ... socio-economic benefit ... compared to alternatives.	Viewed as over-arching area, consolidating outcomes of all other areas canvassed. Includes downstream socio-economic impacts of industrial loads and MB competitive rates.						

APPENDIX A

DRAFT - MIPUG/MANITOBA CHAMBER OF COMMERCE CONCEPTUAL ENGAGEMENT PLAN – RE: PUB/MANITOBA HYDRO NFAT REVIEW

BACKGROUND

Needs For and Alternatives To (NFAT) Hearing

The Manitoba Industrial Power Users Group (MIPUG – see Attachment A) is currently in discussion regarding participation in the Needs For and Alternatives To (NFAT) Review, to be conducted by the Manitoba Public Utilities Board (PUB), in order to assess the needs for and alternatives to Manitoba Hydro's preferred development plan for major new hydroelectric generation and Canada-USA interconnection facilities. The PUB will conduct the review of these matters between August, 2013 and May, 2014, and submit a report with recommendations to the Manitoba Government in June, 2014.

MIPUG's main concerns in the upcoming NFAT is for the predictability and stability of domestic rates in the short- and long-term, and that Manitoba Hydro's long-term system planning promotes the interests of domestic rate payers.

MIPUG and four other groups have been granted intervener status in the NFAT review. No other intervenor party is focused on commercial or industrial ratepayer interests, nor on the General Service (i.e., non-residential) classes of customers. MIPUG has not yet made a formal decision regarding the scale of its possible intervention.

In the course of pre-hearing activities MIPUG has been requested by the PUB to assist during the NFAT hearing to identify and facilitate the advancement of the general interests of all General Service customers of Manitoba Hydro (in addition to the specific concerns raised by MIPUG members during the NFAT review). As it participates in the hearing, MIPUG is to assist the Board in understanding where MIPUG's views may be aligned with the larger group of business customers and where (if any) the perspectives diverge.

As part of investigating the potential for fulfilling this role, MIPUG has identified the Manitoba Chamber of Commerce (Chamber) as a potential consultation/engagement partner.

POSSIBLE CONCEPTUAL ENGAGEMENT PLAN WITH THE MANITOBA CHAMBER OF COMMERCE

MIPUG is potentially interested in engaging with the Chamber as a partner in trying to bring a broader business community perspective to the PUB. MIPUG expects its role could include:

- 1) Helping play a role as conduit of NFAT hearing-related information (from an intervenor's perspective) to the Chamber.

- 2) Sharing with the Chamber the conclusions of the MIPUG group, any evidence that it will file, and arguments that it ultimately plans to make.
 - a) If the Chamber has specific views (supportive or otherwise), it is then possible they may provide these directly to the Board; or
 - b) If the Chamber so requests, MIPUG can share the Chamber's perspectives with the Board for them (not as any formal coalition, but rather as a courtesy).
- 3) If the Chamber does wish to provide their perspectives directly to the Board, MIPUG can provide informal assistance in this undertaking – who to contact at the Board, what will be expected, etc.

The following consultation activities are based on the Draft NFAT Time Table circulated by the PUB for discussion at the Pre-Hearing Conference held May 16, 2013. The proposed activity dates and key NFAT dates remain tentative, with possible adjustments following the release of the Final NFAT Timetable by the PUB at a later date.

The underlying premise for the draft engagement plan is that MIPUG would participate in the PUB review formally representing solely the MIPUG members. MIPUG would not seek to speak for or take position on behalf of the Chamber.

The engagement process is expected to best focus around 3 main activity areas:

- 1) Periodic detailed briefings:** This could entail relatively substantial opportunities to brief the Chamber on the major events of the hearing, the information filed by Hydro and other parties, and the tentative or interim positions of the MIPUG group on major matters. This could require ½ day, and occur at major junctures, perhaps 4 times during the year-long course of the PUB proceeding (e.g., September after the Hydro filing, December after the major phase of discoveries, January after the filing of intervenor evidence, and March/April mid-way through the hearing).
- 2) Written briefings:** As a more frequent mechanism for update, MIPUG could prepare brief written summaries (possibly 3-4 pages) of the major events and information filed. This may be appropriate monthly during the pre-hearing phases, and perhaps bi-weekly during the hearing phase.
- 3) Phone contact or briefings as required:** In the event the Chamber had specific issues or concerns to pursue, or was seeking information about potentially being further engaged with the PUB (e.g., making a presentation to the PUB), MIPUG may be able to make available information and basic support in addressing those matters.

As this is an iterative process, alternative methods for discussion, including conference calls and a revised schedule of meetings and/or update information may be required throughout.

ATTACHMENT A - INTRODUCTION TO MIPUG

Manitoba Industrial Power Users Group (MIPUG) is an association of major industrial companies operating in Manitoba. MIPUG's key concerns related to electricity costs are: ensuring rates reflect the cost to provide electricity, stability and predictability.

MIPUG has participated as an intervener in each of the Public Utilities Board's reviews of electricity rates since December 1988 when the Board was first given the jurisdiction to approve electricity rates. MIPUG played a role in the Board's review of Hydro's Major Capital Projects in 1990 and the Centra Gas acquisition in 1999. MIPUG also made a presentation at the Clean Environment Commission Wuskwatim hearing.

The MIPUG members are: Vale, Tolko Industries Ltd., HudBay Minerals Inc., Canexus Chemicals, Koch Fertilizer Canada ULC, Gerdau Long Steel North America – Manitoba Mill, ERCO Worldwide, Amsted Rail - Griffin Wheel Company, Enbridge Pipelines Inc. and TransCanada Keystone Pipeline. Many MIPUG members are also associated with the various Chambers of Commerce in Manitoba.

MIPUG primarily represents members in the General Service Large >100 kV rate class. This customer class purchases in excess of five thousand gigawatt hours of electricity at an annual cost of over \$200 million per year. This class of electricity users represent nearly a quarter of all the energy sold to Manitoba Hydro's domestic customers.

APPENDIX B

EDUCATION: **University of Manitoba**
MNRM (Natural Resource Management), 1998

Prescott College (Arizona)
BA (Human Development and Outdoor Education), 1994.

**PROFESSIONAL
HISTORY:**

InterGroup Consultants Ltd.

Winnipeg, MB

1998 – Present *Research Analyst/Consultant/Principal*

Project development, regulatory and rates, economic analysis and environmental licencing, primarily in the energy field.

Utility Regulation

Conducted research and analysis for regulatory and rate reviews of electric, gas and water utilities in six Canadian provinces and territories. Prepare evidence and review testimony for regulatory hearings. Assist in utility capital and operations planning to assess impact on rates and long-term rate stability. Major clients included the following:

- **For Yukon Energy Corporation (1998-present)**, analysis and support of regulatory proceedings and normal regulatory filings before the Yukon Utilities Board. Appear before YUB as expert on revenue requirement matters, cost of service, rate design, and resource planning. Prepare analysis of major capital projects, financing mechanisms to reduce rate impacts on ratepayers, depreciation, as well as revenue requirements.
- **For Yukon Development Corporation (1998-present)**, prepare analysis and submission on energy matters to Government. Participate in development of options for government rate subsidy programs. Assist with review of debt purchase, potential First Nations investment in utility projects, and corporate governance.
- **For Northwest Territories Power Corporation (2000-present)**, provide technical analysis and support regarding General Rate Applications and related

Public Utilities Board filings. Assist in preparation of evidence and providing overall guidance to subject specialists in such topics as depreciation and return. Appear before PUB as expert in revenue requirement, cost of service and rate design matters, and on system planning reviews (Required Firm Capacity).

- **For Manitoba Industrial Power Users Group (1998-present)**, prepare analysis and evidence for regulatory proceedings before Manitoba Public Utilities Board representing large industrial energy users. Appear before PUB as expert in cost of service and rate design matters. Assist in regulatory analysis of the purchase of local gas distributor by Manitoba Hydro. Assist industrial power users with respect to assessing alternative rate structures and surplus energy rates.
- **For Industrial Customers of Newfoundland and Labrador Hydro (2001-present)**, prepare analysis and evidence for Newfoundland Hydro GRA hearings before Newfoundland Board of Commissioners of Public Utilities representing large industrial energy users. Appear before PUB as expert in cost of service and rate design matters.
- **For NorthWest Company Limited (2004-2006)**, review rate and rider applications by Nunavut Power Corporation (Qulliq Energy), provide analysis and submission to rate reviews before the Utility Rates Review Council.
- **For Municipal Customers of City of Calgary Water Utility (2012-2013)**, analysis of proposed new development charges and reasonableness of water and wastewater rates.

Project Development, Socio-Economic Impact Assessment and Mitigation

Provide support in project development, local investment opportunities or socio-economic impact mitigation programs for energy projects, including northern Manitoba, Yukon, and NWT. Support to local communities in resolution of outstanding compensation claims related to hydro projects.

- **For Yukon Energy Corporation (2005-current)**, Participated in preparation of resource plans, including Yukon Energy's 20-Year Resource Plan Submission to the Yukon Utilities Board in 2005 (including providing expert testimony before the YUB), advisor on 2010 update. Project Manager for all planning phases of the Mayo B hydroelectric project (\$120 million project) including environmental assessment and licencing, preliminary project design, preparation of materials for Yukon Utilities Board hearing, joint YEC/First Nation working group on all technical matters related to project including fisheries, managing planning phase financing and budgets.

- **For Northwest Territories Power Corporation (2010-current)**, Participate in planning stages of \$37 million dam replacement project; appear before Mackenzie Valley Land and Water Board (MVLWB) regarding environmental licence conditions; participate in contractor negotiations, economic assessments, and ongoing joint company/contractor project Management Committee. Provide economic and rate analysis of potential major transmission build-out to interconnect to southern jurisdictions. Conduct business case analysis for regulatory review of projects \$400,000-\$5 million, and major PUB Project Permit reviews of projects >\$5 million.
- **For Northwest Territories Energy Corporation (2003-2005)**, provide analysis and support to joint company/local community working groups in development of business case and communication plans related to potential new major hydro and transmission projects.
- **For Kwadacha First Nation and Tsay Keh Dene (2002-2004)**: Support and analysis of potential compensation claims related to past and ongoing impacts from major northern BC hydroelectric development. Review options related to energy supply, including change in management contract for diesel facilities, potential interconnection to BC grid, or development of local hydro.
- **For Manitoba Hydro Power Major Projects Planning Department (1999-2002)**, initial review and analysis of socio-economic impacts of proposed new northern generation stations and associated transmission. Participate in joint working group with client and northern First Nation on project alternatives (such as location of project infrastructure).
- **For Manitoba Hydro Mitigation Department (1999-2002)**, provide analysis and process support to implementation of mitigation programs related to past northern generation projects, debris management program. Assist in preparation of materials for church-led inquiry into impacts of northern hydro developments.
- **For International Joint Commission (1998)**, analysis of current floodplain management policies in the Red River basin, and assessment of the suitability of alternative floodplain management policies.
- **For Nelson River Sturgeon Co-Management Board (1998 and 2005)**, an assessment of the performance of the Management Board over five years of operation and strategic planning for next five years.

1996 - 1998

Land Use Policy Analyst

Conducted research into protected area legislation in Canada and potential for application in the NWT. Primary focus was on balancing multiple use issues, particularly mining and mineral exploration, with principles and goals of protection.

PUBLICATIONS:

Government Withdrawals of Mining Interests in Great Plains Natural Resources Journal. University of South Dakota School of Law. Spring 1997.

Legal Framework for the Registered Trapline System in Aboriginal Trappers and Manitoba's Registered Trapline System: Assessing the Constraints and Opportunities. Natural Resources Institute. 1997.

Land Use and Protected Areas Policy in Manitoba: An evaluation of multiple-use approaches. Natural Resources Institute. (Masters Thesis). 1998.

APPENDIX C

Patrick Bowman Utility Regulation Experience

Utility	Proceeding	Work Performed	Before	Client	Year	Testimony
Yukon Energy Corporation	Final 1997 and Interim 1998 Rate Application	Analysis and Case Preparation	Yukon Utilities Board (YUB)	Yukon Energy	1998	No
Manitoba Hydro	Curtailable Service Program Application	Analysis, Preparation of Intervenor Evidence and Case Preparation	Manitoba Public Utilities Board (MPUB)	Manitoba Industrial Power Users Group (MIPUG)	1998	No
Yukon Energy	Final 1998 Rates Application	Analysis and Case Preparation	YUB	Yukon Energy	1999	No
Westcoast Energy	Sale of Shares of Centra Gas Manitoba, Inc. to Manitoba Hydro	Analysis and Case Preparation	MPUB	MIPUG	1999	No
Manitoba Hydro	Surplus Energy Program and Limited Use Billing Demand Program	Analysis and Case Preparation	MPUB	MIPUG	2000	No
West Kootenay Power	Certificate of Public Convenience and Necessity - Kootenay 230 kV Transmission System Development	Analysis of Alternative Ownership Options and Impact on Revenue Requirement and Rates	British Columbia Utilities Commission (BCUC)	Columbia Power Corporation/Columbia Basin Trust	2000	No
Northwest Territories Power Corporation (NTPC)	Interim Refundable Rate Application	Analysis and Case Preparation	Northwest Territories Public Utilities Board (NWTTPUB)	NTPC	2001	No
NTPC	2001/03 Phase I General Rate Application	Analysis and Case Preparation	NWTTPUB	NTPC	2000-02	No - Negotiated Settlement
Newfoundland Hydro	2002 General Rate Application	Analysis, Preparation of Intervenor Evidence and Case Preparation	Board of Commissioners of Public Utilities of Newfoundland and Labrador (NLPUB)	Newfoundland Industrial Customers	2001-02	No
NTPC	2001/02 Phase II General Rate Application	Analysis, Preparation of Company Evidence and Expert Testimony	NWTTPUB	NTPC	2002	Yes
Manitoba Hydro/Centra Gas	Integration Hearing	Analysis and Case Preparation	MPUB	MIPUG	2002	No
Manitoba Hydro	2002 Status Update Application/GRA	Analysis, Preparation of Intervenor Evidence and Expert Testimony	MPUB	MIPUG	2002	Yes
Yukon Energy	Application to Reduce Rider J	Analysis and Case Preparation	YUB	Yukon Energy	2002-03	No
Yukon Energy	Application to Revise Rider F Fuel Adjustment	Analysis and Case Preparation	YUB	Yukon Energy	2002-03	No
Newfoundland Hydro	2004 General Rate Application	Analysis, Preparation of Intervenor Evidence and Expert Testimony	NLPUB	Newfoundland Industrial Customers	2003	Yes
Manitoba Hydro	2004 General Rate Application	Analysis, Preparation of Intervenor Evidence and Expert Testimony	MPUB	MIPUG	2004	Yes
NTPC	Required Firm Capacity/System Planning hearing	Analysis, Preparation of Company Evidence and Expert Testimony	NWTTPUB	NTPC	2004	Yes
Nunavut Power (Qulliq Energy)	2004 General Rate Application	Analysis, Preparation of Intervenor Submission	Nunavut Utility Rate Review Commission (URRC)	NorthWest Company (commercial customer intervenor)	2004	No
Qulliq Energy	Capital Stabilization Fund Application	Analysis, Preparation of Intervenor Submission	URRC	NorthWest Company	2005	No
Yukon Energy	2005 Required Revenues and Related Matters Application	Analysis, Preparation of Company Evidence and Expert Testimony	YUB	Yukon Energy	2005	Yes
Manitoba Hydro	Cost of Service Methodology	Analysis, Preparation of Intervenor Evidence and Expert Testimony	MPUB	MIPUG	2006	Yes
Yukon Energy	2006-2025 Resource Plan Review	Analysis, Preparation of Company Evidence and Expert Testimony	YUB	Yukon Energy	2006	Yes
Newfoundland Hydro	2006 General Rate Application	Analysis, Preparation of Intervenor Evidence	NLPUB	Newfoundland Industrial Customers	2006	No - Negotiated Settlement
NTPC	2006/08 General Rate Application Phase I	Analysis, Preparation of Company Evidence and Expert Testimony	NWTTPUB	NTPC	2006-08	Yes
Manitoba Hydro	2008 General Rate Application	Analysis, Preparation of Company Evidence and Expert Testimony	MPUB	MIPUG	2008	Yes
Manitoba Hydro	2008 Energy Intensive Industrial Rate Application	Analysis, Preparation of Intervenor Evidence and Expert Testimony	MPUB	MIPUG	2008	Yes
Yukon Energy	2008/2009 General Rate Application	Analysis, Preparation of Company Evidence and Expert Testimony	YUB	Yukon Energy	2008-09	Yes
FortisBC	2009 Rate Design and Cost of Service Mayo B Part III Application	Analysis and Case Preparation	BCUC	BC Municipal Electrical Utilities	2009-10	No
Yukon Energy	2009 Phase II Rate Application	Analysis, Preparation of Company Evidence	YUB	Yukon Energy	2010	No
Yukon Energy	2009 Phase II Rate Application	Analysis, Preparation of Company Evidence and Expert Testimony	YUB	Yukon Energy	2009-10	Yes
Newfoundland Hydro	Rate Stabilization Plan (RSP) Finalization of Rates for Industrial Customers	Analysis, Preparation of Intervenor Evidence	NLPUB	Newfoundland Industrial Customers	2010	Pending
Manitoba Hydro	2010/11 and 2011/12 General Rate Application	Analysis, Preparation of Intervenor Evidence and Expert Testimony	MPUB	MIPUG	2010-11	Yes
NTPC	Bluefish Dam Replacement Project	Analysis, Preparation of Company Evidence and Expert Testimony	Mackenzie Valley Land and Water Board	NTPC	2011	Yes
NTPC	2012/14 General Rate Application	Analysis, Preparation of Company Evidence and Expert Testimony	NWTTPUB	NTPC	2012	Yes
Manitoba Hydro	2012/13 and 2013/14 General Rate Application	Analysis, Preparation of Intervenor Evidence and Expert Testimony	MPUB	MIPUG	2013	Yes

APPENDIX D

June 24, 2013

4460 Houlihan Ct
Victoria BC V8N 6C6
June 24, 2013

Mr. Patrick Bowman
InterGroup Consultants Ltd.
pbowman@intergroup.ca

Dear Mr. Bowman:

Thank you for sending me the Terms of Reference for the “Needs For and Alternatives To” Review of Manitoba Hydro’s proposed preferred development plan for major new generation and transmission facilities. Our subsequent telephone conversation and e mail correspondence provided more details on the purpose, context, process, and timing of this Review by the Manitoba Public Utilities Board (PUB). It appears the Review will provide the Manitoba Government with the information needed to help chart the utility’s future as either a provincially-focused, risk averse utility, an export oriented utility similar to Hydro Quebec, or a utility positioned somewhere along the continuum between these two.

I would be pleased to be considered to assist InterGroup and your client, the Manitoba Industrial Power Users Group (MIPUG), in contributing to this Review, which would benefit from the electricity export experiences of British Columbia. Both Provinces have Crown owned, hydro-dominant utilities that look to export markets to generate net revenues. In British Columbia until the mid 1980s, the completion of new, large generation projects often meant BC Hydro had to aggressively pursue export markets until load growth caught up. Subsequent “prebuild for export” initiatives and independent power proposal calls for export did not materialize. More recently, policies and legislation to require self sufficiency under critical water plus insurance were implemented to create a surplus that was to be marketed in the western United States. These requirements have recently been relaxed given weak export markets. Meanwhile, BC Hydro buys and sells electricity when market conditions are advantageous to optimize its system and to keep rates lower than they would be in the absence of electricity trading.

I anticipate my involvement would be similar to my contributions to the review of Manitoba Hydro’s 2008 industrial rate proposals, namely a 20-30 page written brief that provides relevant information on British Columbia’s electricity export experiences. This brief could be filed as testimony and be the subject of information requests and questions posed by the PUB panel, the utility, and interveners. It may also support MIPUG in its cross examination of the PUB’s independent expert consultants.

This brief could cover such topics as the generation and transmission infrastructure (especially interties), trade volumes and revenues, trade income accounting treatment, policies and legislation (e.g. the controversial Clean Energy Act), and BC Hydro’s export market outlook. Perhaps as important would be a discussion on the risks and rewards associated with exports, such as risk/reward allocation between ratepayers and taxpayers, domestic reliability and rate impacts, and factors in the importing jurisdiction over which an exporting provincial utility has little control such as renewable portfolio standards,

greenhouse gas offsets, load growth, tax credits, transmission constraints, and the availability of inexpensive gas generation. In both British Columbia and Manitoba, electricity exports can contribute significantly to provincial economies and reduce greenhouse gas emissions in the importing states, but they come with significant economic risks.

As British Columbia's Assistant Deputy Minister of Energy and Mines with responsibility for electricity policy for over ten years, and Chair and Chief Executive officer of the BC Utilities Commission for five years, I feel I can provide useful perspectives for the PUB Review. I am currently a member of a three person task force appointed by the British Columbia Government to examine the current industrial electricity policy and regulatory framework. While this assignment was to be completed by the end of July, our Terms of Reference have been expanded and the report deadline extended to the end of October. (We are targeting an Interim Report to be publicly released in early September.) When combined with summer vacation commitments, this may limit my availability to become fully engaged in the Review until early autumn.

Assuming this proposed role meets with your and MIPUG's approval, I look forward to working with you and your colleagues on this important Review.

Yours sincerely,

Peter Ostergaard

APPENDIX E

Resumé

Peter Edward Ostergaard

EMPLOYMENT

Consulting

2008-Present: Principal, Ostergaard Consulting Group

- contract assignments in energy and land use planning consulting services; clients have included the BC Utilities Commission, an independent power producer, regional land/resource planning non-government organizations, a provincial industrial power consumer group, the Government of the Northwest Territories, and the BC Ministry of Energy and Mines

Fraser Basin Council

2008-2012: Energy Specialist (Part Time), Smart Planning For Communities Program

- assist and advise local governments with sustainability, renewable energy, energy efficiency, and climate action planning, programs, and projects

Government of British Columbia, Victoria

2003-2008: Assistant Deputy Minister, Electricity and Alternative Energy Division, Ministry of Energy, Mines and Petroleum Resources

- responsible for the Division that develops British Columbia's legislation, plans, policies, and programs for electricity, alternative energy, bioenergy, energy efficiency, and energy technology
- set policy and governance framework for Crown owned utilities (e.g. BC Hydro and BC Transmission Corporation) and the BC Utilities Commission

BC Utilities Commission, Vancouver

1998-2003: Chair and Chief Executive Officer, British Columbia Utilities Commission

- led the British Columbia agency responsible for energy utility regulation
- responsible for the functions of the Commission and its staff in administering the Utilities Commission Act to ensure that customers receive safe, reliable energy services at fair rates from utilities, and that shareholders of those utilities have an opportunity to earn a fair return on invested capital

Government of British Columbia, Victoria

1996-1998: Assistant Deputy Minister, Energy and Minerals Division, Ministry of Employment and Investment

- led a progressive Division of 275 staff

- responsible for the inventory, management, rights disposition, and regulation of BC's natural gas, oil, mineral, and coal resources

1990-1996: Assistant Deputy Minister, Energy Resources Division, Ministry of Energy, Mines and Petroleum Resources (MEMPR)

- led a progressive Division of 100 staff
- responsible for policy and management of BC's electricity, gas, and oil resources

1989: Director, Project Analysis Branch, MEMPR

- responsible for the review of energy project applications

1988: Manager, Regulated Projects, Energy Policy Branch, MEMPR

1987-1988: Regional Development Officer (Secondment), Ministry of Environment, Lands and Parks and Ministry Responsible for Cariboo

- assisted in regional projects, including the formation of the University of Northern British Columbia

1985-1987: Senior Project Analyst, Project Analysis Branch, MEMPR

Local Government

1982-1983: Senior Planning Coordinator, Ministry of Municipal Affairs, Prince George

- advised and assisted municipalities and Regional Districts in central and northern British Columbia on zoning, land use, and subdivision matters

1978-1982: Assistant Planner, City of Prince George, BC

- responsible for Central Business District, municipally-developed light industrial and residential subdivisions, and long range planning
- planning, promotion, and management of economic development

Planning and Resource Management Consulting

1983-1985: Senior Planner, Urban Systems Ltd., Prince George, BC

- prepared plans, bylaws, market analyses, and feasibility studies for local government and private sector clients

1978: Associated Resource Consultants, North Vancouver, BC

- community, environmental, and economic assessments of pipeline projects

Teaching Positions

1977-1988: Various Sessional Instructor Positions:

- University of Victoria, Fall 1988, Urban Geography and Planning
- College of New Caledonia, Prince George, Fall 1982, Meteorology and Climatology
- University of British Columbia, 1978, Locational Analysis
- Memorial University of Newfoundland, Summer 1977, Resources Management

1977-1978: Instructor in Geography (full time, temporary appointment), Malaspina College, Nanaimo, BC

1975-1977: Instructor in Geography (full time, temporary appointments), College of New Caledonia, Prince George, BC

EDUCATION

1973-1975: M.A. (Geography), First Class Standing
University of British Columbia, Vancouver, BC

1969-1973: B.A. (Honours), First Class Standing
Queen's University, Kingston, Ontario

Numerous short courses and seminars

Member, Canadian Institute of Planners (MCIP); Registered Professional Planner

OTHER INFORMATION

Citizenship: Canadian

Birthplace and Date: Valleyfield, Quebec; August 1, 1951

Family Status: married, two adult children

Interests: running; cross country and downhill skiing; carpentry; travel

Recent Volunteering: Chair, Building Connectivity Steering Committee, National Electricity Sector Council; Land Use and Development Director, Gordon Head Community Association (Saanich)

REFERENCES

Letters of Reference, Names, and Performance Evaluations are available on request

CONTACT INFORMATION

Peter Ostergaard

4460 Houlihan Court
Victoria, British Columbia V8N 6C6

250 721-1865 (Res)
250 888-3030 (Mobile)

peterostergaard@shaw.ca (e mail)