

**THE MANITOBA PUBLIC UTILITIES BOARD**

**AGREEMENT BETWEEN THE MANITOBA PUBLIC UTILITIES BOARD AND  
LA CAPRA ASSOCIATES, INC.  
FOR THE PROVISION OF INDEPENDENT EXPERT SERVICES**

**ISSUED BY:** *The Manitoba Public Utilities Board*

**ISSUE DATE:** **August 27, 2013**

**NAME: LA CAPRA ASSOCIATES, INC.**  
(the "Independent Expert Consultant")

**PREPARED BY:** Hollis Singh  
Secretary and Executive Director  
The Public Utilities Board  
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## 1.0 Preamble

- 1.1 The Public Utilities Board (“Board”) is a quasi-judicial administrative tribunal that regulates monopoly utilities and performs several other functions for the public interest.
- 1.2 The Board’s functions include the approval of utility rates, and the Board’s processes include public hearings, paper-based proceedings, and related processes.
- 1.3 Pursuant to Order-in-Council 128/2013, the Lieutenant-Governor in Council of Manitoba has asked the Board to conduct a Needs For and Alternatives To review (“NFAT Review”) of Manitoba Hydro’s proposed Preferred Development Plan, which includes the Keeyask and Conawapa Generating Stations, their associated domestic AC transmission facilities, and a new Canada-United States of America transmission interconnection.
- 1.4 In conducting the NFAT Review, the Board is governed by Terms of Reference that were issued together with the Order-in-Council, a copy of which is attached as Appendix “A” hereto.
- 1.5 The Terms of Reference stipulate, *inter alia*, as follows:

*The Panel may use one or more independent expert consultant(s) for the purpose of the NFAT. In addition to such other questions and issues as the Panel may determine they should examine, the independent expert consultant(s) shall be expected to critically examine the following:*

*(a) the high level forecasts of export revenues that are filed by Hydro and whether the forecasts appropriately and accurately reflect the export contracts, including Commercially Sensitive Information.*

*(b) the accuracy and reasonableness of Hydro’s approach to producing an assessment of financial risks (including drought), the assessment of which is derived using Commercially Sensitive Information;*

*(c) the appropriateness and correct application of methodologies that cannot be publicly disclosed by MH because they contain Commercially Sensitive Information, such as whether Hydro’s approach to comparing generation sequences follows sound industry practice;*

*(d) whether high level summaries filed by Hydro of Net Present Values and Internal Rates of Return which are derived from Commercially Sensitive Information reflect sound assumptions and calculations; and*

*(e) the accuracy and soundness of Hydro's calculation of a consensus forecast of future market prices for electricity and fuels which is derived from Commercially Sensitive Information.*

*The PUB shall hire the independent expert consultant(s).*

*The independent expert consultant(s) shall provide a report(s) to be filed in evidence on the public record, which shall contain their analysis of the submissions filed by Hydro, with sufficient information to satisfy the Panel that the review was conducted with due diligence. The report(s) shall not draw conclusions as to the needs for or alternatives to the Plan, which is the role of the Panel.*

*The independent expert consultant(s) shall be available for cross-examination at the public hearing, and shall be available as a resource to legal counsel for registered intervenors as deemed necessary by the PUB to prepare for the cross-examination of Hydro witnesses on Commercially Sensitive Information.*

*The independent expert consultant(s) may also provide such advice to the Panel, and file such report(s) with the Panel in camera, that contain, reference, or analyse Commercially Sensitive Information in sufficient detail to satisfy the Panel. Cross-examination of the independent expert consultant(s) on such issues shall be permitted in camera.*

*The independent expert consultant(s) shall not quote in their publicly filed report(s) Commercially Sensitive Information or information that would enable a third party to reverse-engineer Commercially Sensitive Information ("reverse-engineer" means to discover, synthesize or otherwise recreate the Commercially Sensitive Information following a detailed examination). No public cross-examination of the independent expert consultant(s) shall take place with respect to Commercially Sensitive Information. The independent expert consultant(s) will be required to execute a non-disclosure agreement satisfactory to Hydro and the Panel.*

## **2.0 Purpose and Duration of Retainer**

- 2.1 By way of this Agreement, the Board retains La Capra Associates, Inc. as an Independent Expert Consultant for purposes of the NFAT Review.

- 2.2 Subject to the right of the Board to terminate the retainer for non-compliance with the terms and conditions of this Agreement, the term of the retainer shall be from the date of signing of this Agreement until the conclusion of the NFAT Review, which review is currently anticipated to be completed in July 2014.

### **3.0 Scope of Review**

- 3.1 The Independent Consultant's scope of work shall be as set out in Appendix "B" hereto.
- 3.2 In addition to the scope of work as set out in Appendix "B", the Independent Expert Consultant shall review and provide expertise with respect to any further matter as may be directed by the Board.

### **4.0 Non-Disclosure Agreement**

- 4.1 The Independent Expert Consultant agrees to enter into a non-disclosure agreement with Manitoba Hydro in a form stipulated by the Board with respect to the receipt of Commercially Sensitive Information, as that term is defined in the Terms of Reference, within 48 hours of this Agreement being signed.

### **5.0 Delivery of Report**

- 5.1 The Independent Expert Consultant shall provide a report, to be filed in evidence on the public record, which shall contain the Independent Expert Consultant's analysis of the submissions filed by Manitoba Hydro, with sufficient information to satisfy the Board that the review was conducted with due diligence.
- 5.2 The Independent Expert Consultant's report shall not draw conclusions as to the needs for and alternatives to Manitoba Hydro's Preferred Development Plan. The Independent Expert Consultant acknowledges that the Terms of Reference specifically prohibit Independent Expert Consultant reports from drawing such conclusions and leave the responsibility for drawing such conclusions with the Board.
- 5.3 The Independent Expert Consultant shall not quote, in its public report, Commercially Sensitive Information, as that term is defined in the Terms of

Reference, or information that would enable a third party to reverse-engineer Commercially Sensitive Information. To the extent the Independent Expert Consultant wishes to include in their report reference to, or analysis of, Commercially Sensitive Information, reports containing such Commercially Sensitive Information shall be filed with the Board *in camera*, pursuant to confidential filing procedures as established by the Board for the NFAT Review.

- 5.4 The Independent Expert Consultant shall work cooperatively with other Independent Expert Consultants appointed by the NFAT Panel for the NFAT Review, as well as with any Intervener legal counsel who have signed a non-disclosure agreement, and shall provide them with such information as may be necessary for the completion of their own reports, recognizing any reasonable interdependencies. This may include the sharing of finding and conclusions with other Independent Expert Consultants and/or Intervener legal counsel prior to the issuance of a final report.

## **6.0 Delivery of Oral Evidence and Cross-Examination**

- 6.1 The Independent Expert Consultant shall deliver an oral presentation with respect to his/her findings during the NFAT Review process as scheduled by the Board, and agrees to be subject to cross-examination on his/her evidence. In accordance with the Board's *in camera* process for evidence related to Commercially Sensitive Information, the Independent Expert Consultant shall deliver oral evidence and be subject to cross-examination in both the public hearing process and *in camera*, if so required.

## **7.0 Independence of Independent Expert Consultant**

- 7.1 The Independent Expert Consultant acknowledges that, although appointed by the Board, his/her role is to provide a fully independent assessment to the Board, even if the Board may disagree with the Independent Expert Consultant's evidence. No legal privilege exists between the Board, Board Counsel and the Independent Expert Consultant. The Independent Expert Consultant acknowledges that s/he will be subject to:

7.1.1 Formal Information Requests from the Board; and

7.1.2 Cross-examination by Board Counsel.

7.2 The Board may, at its discretion, appoint independent legal counsel to represent the Independent Expert Consultant at no cost to the Independent Expert Consultant.

## **8.0 Pricing and Invoicing Procedures**

8.1 Pricing shall be in accordance with the hourly rates previously submitted to and approved by the Board.

8.2 Travel time is not billable. Travel disbursements may be charged to the Board without mark-up. Air travel will be reimbursed at “economy” class rates; business class or first class travel costs will not be permitted. Meals will be reimbursed at cost.

8.3 Receipts for all expenses should be provided. Disbursements will be paid at cost without mark-up.

8.4 Invoices are to be provided monthly, showing all time and disbursements. All invoices will be reviewed by the Board before delivery to the Applicant for payment. US dollar invoices will be paid by the Applicant in US dollars. The format of the invoice is to be reviewed by the Board.

8.5 Invoices are to be submitted monthly to:

The Public Utilities Board  
400 - 330 Portage Avenue  
WINNIPEG, Manitoba R3C 0C4  
Attention: Mr. Hollis Singh, Executive Director

8.6 Provincial sales tax, if applicable, shall be identified separately on each invoice rendered by the Independent Expert Consultant. The federal goods and services tax (“GST”) is not applicable to services rendered pursuant to this Agreement because the Board is an agency of the Government of Manitoba. GST shall therefore not be invoiced. It is understood that, should Manitoba’s GST status change, GST may be levied on any hourly rates as identified in Appendix “B”.

## **9.0 Liability/Indemnity**

- 9.1 The Independent Expert Consultant shall use due care in the performance of its obligations pursuant or related to this Agreement to ensure that no person is injured, no property is damaged or lost and no rights are infringed. Without limiting any other rights or remedies of the Board against the Advisor or any other persons, the Independent Expert Consultant shall be solely responsible for:
- 9.1.1 any injury to persons (including death), damage or loss to property or infringement of rights caused by, or related to, the performance of this Agreement by the Independent Expert Consultant, or the officers, employees, or agents of the Independent Expert Consultant; and
  - 9.1.2 any acts, errors or omissions of the Independent Expert Consultant, or of the officers, employees, or agents of the Independent Expert Consultant, including any purposeful or accidental disclosure of Commercially Sensitive Information;
- 9.2 The Independent Expert Consultant shall save harmless and indemnify the Board, its officers, employees and agents from and against all claims, liabilities and demands with respect to clauses 9.1.1 and 9.1.2, together with all costs, expenses and fees associated therewith.
- 9.3 The Independent Expert Consultant will assume the full duty, obligation and expense of obtaining all necessary licences and permits as required for the provision of professional services in the Province of Manitoba.

## **10.0 Conflict of Interest**

- 10.1 For the duration of this Agreement, the Independent Expert Consultant must not be actively engaged by any of the major utilities regulated by the Board, including Manitoba Hydro, Centra Gas Manitoba Inc., Manitoba Public Insurance Corporation, Stittco Utilities Man Ltd. and Swan Valley Gas Corp, nor provide services to individuals or organizations making submissions to or appearing before the Board, nor shall the Independent Expert Consultant provide goods or

services to organizations or individuals who may be supplying goods or services to Manitoba Hydro .

- 10.2 Where conflicts arise, real or perceived, with respect to the cited utilities, or for other matters for which the Board is assigned regulatory oversight, the Independent Expert Consultant agrees to immediately notify the Board of such conflict.
- 10.3 Unless the Board consents to the conflict and the proposed management thereof, the Independent Expert Consultant must divest her/himself of the conflicting work immediately.

### **11.0 Termination of the Agreement for Cause**

- 11.1 Should the Independent Expert Consultant fail to respond to a request for service or comply with any of the terms and conditions set out in this Agreement, including the obligation to deliver the Independent Expert Consultant services as set out herein within the deadlines set by the Board from time to time, the Board shall have the right to terminate this agreement for cause, upon 24 hrs notice, in writing, sent to:

La Capra Associates, Inc.  
One Washington Mall, 9<sup>th</sup> Floor  
Boston, Massachusetts, 02108

Attn: Daniel Peaco

### **12.0 Insurance**

- 12.1 The cost of obtaining any required insurance shall be borne by the Independent Expert Consultant.
- 12.2 The Independent Expert Consultant agrees to obtain, and maintain throughout the term of this Agreement, public liability, property damage, commercial or comprehensive insurance against claims for personal injury, death, or damage to property arising out of any of the operations of the Independent Expert Consultant under this Agreement, or as a result of any of the acts or omissions of the Independent Expert Consultant or any of its officers, employees, or agents.



- 12.3 The Independent Expert Consultant shall not do, or omit to do, or suffer anything to be done, or omitted to be done on the said Agreement which will in any way impair or invalidate such policy or policies.

**13.0 Assignment/Subcontracting**

- 13.1 This Agreement shall not be assigned by the Independent Expert Consultant.

- 13.2 The Independent Expert Consultant shall not subcontract any services to be rendered pursuant to this agreement without the express prior written permission of the Board.

**14.0 Governing Law and Forum Conveniens**

- 14.1 This Agreement shall be governed by the laws of Manitoba, Canada. Should any dispute arise under this Agreement, the Independent Expert Consultant agrees that the forum to try such disputes shall be Winnipeg, Manitoba.

This Agreement is made the 27<sup>th</sup> day of August, 2013

**BETWEEN:**

**THE PUBLIC UTILITIES BOARD**

**(called "Board")**

**- and -**

**LA CAPRA ASSOCIATES, INC.**

**(called the "Independent Expert Consultant")**

*"Witnessed"*

\_\_\_\_\_  
Witnessed by:

*"Original signed by Hollis Singh"*

\_\_\_\_\_  
The Public Utilities Board

September 11, 2013

\_\_\_\_\_  
Date

*"Witnessed"*

\_\_\_\_\_  
Witnessed by:

*"Original signed by Daniel Peaco"*

\_\_\_\_\_  
Independent Expert Consultant

Name: Daniel Peaco

Position: President

I have authority to bind the  
Corporation/Partnership

August 28, 2013

\_\_\_\_\_  
Date

**Appendix "A" – Terms of Reference**

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# 1 **Terms of Reference - Needs For and Alternatives To (NFAT) Review**

## 2 **NFAT review for Manitoba Hydro's proposed preferred development plan for** 3 **the Keeyask and Conawapa Generating Stations, their associated domestic AC** 4 **transmission facilities and a new Canada-USA transmission interconnection**

### 5 **INTRODUCTION**

6 On January 13, 2011, the Government of Manitoba notified Manitoba Hydro (Hydro) of its  
7 intention to carry out a public Needs For and Alternatives To (NFAT) review and assessment of  
8 the corporation's proposed preferred development plan (Plan) for major new hydro-electric  
9 generation and Canada-USA interconnection facilities using an independent body.

10 On November 15, 2012 the Minister of Innovation, Energy and Mines announced that the  
11 Government of Manitoba had asked the Manitoba Public Utilities Board (PUB) to conduct the  
12 NFAT for the Keeyask and Conawapa Generating Stations and their associated transmission  
13 facilities. This document, including Appendix A, outlines the Terms of Reference for the NFAT.

### 14 **THE PLAN**

15 Hydro's Plan is intended to meet a growing provincial demand for electricity and take advantage  
16 of opportunities to export power to US customer utilities. The Plan includes the Keeyask and  
17 Conawapa Generating Stations, their associated domestic AC transmission facilities and a new  
18 Canada-USA transmission interconnection. Hydro has stated that its Plan is being brought  
19 forward now to take advantage of the proposed Canada-USA interconnection and long-term firm  
20 export sale opportunities that occur rather infrequently. Hydro's Plan is dependent upon  
21 developing a new transmission interconnection into the USA and entering into long-term firm  
22 export sales with US-based electric utilities Minnesota Power and Wisconsin Public Service.

23 Hydro asserts that the Plan will provide significant benefits to Manitobans. Hydro also asserts  
24 that the value proposition of its Plan is justified on a very broad basis, taking into consideration  
25 inherent uncertainties that exist over a reasonable range of future possible critical inputs into its  
26 business case, and that it is the best development option when compared to alternatives.

### 27 **MANDATE**

28 The NFAT will be conducted under the authority of Section 107 of *The Public Utilities Board Act*  
29 ("The PUB Act"). PUB members designated by the Chair to conduct the NFAT under section  
30 15(6) of The PUB Act will constitute the NFAT Panel (the "Panel"). Panel members will exercise  
31 their duty to conduct the assigned NFAT in accordance with The PUB Act and these Terms of  
32 Reference.

33 For greater certainty, in conducting the NFAT, the Panel members who are designated by the  
34 Chair to conduct the review:

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36 (a) may hear evidence *in camera* for the purpose of protecting Commercially  
 37 Sensitive Information as defined in Appendix A, which forms a part of these Terms of  
 38 Reference;

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 40 (b) may exercise discretion over the access of any person to Commercially Sensitive  
 41 Information; and

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 43 (c) shall follow the Rules of Practice and Procedure of the PUB, as amended from  
 44 time to time, if not otherwise dealt with under these Terms of Reference.

45 At the completion of its review, the Panel will provide a report to the Minister responsible for the  
 46 administration of *The Public Utilities Board Act* (currently the Minister of Healthy Living, Seniors  
 47 and Consumer Affairs) no later than June 20, 2014. The report will include recommendations to  
 48 the Government of Manitoba on the needs for Hydro's preferred development Plan and an  
 49 overall assessment as to whether or not the Plan is in the best long-term interest of the province  
 50 of Manitoba when compared to other options and alternatives.

## 51 PUBLIC PARTICIPATION

52 The public will be encouraged to provide input and comment on the Plan as part of the NFAT.

## 53 SCOPE OF THE NFAT REVIEW

54 The Panel will review and assess the needs for and alternatives to Hydro's Plan. Its assessment  
 55 will be based upon the evidence submitted by Hydro, intervenors and independent expert  
 56 consultants used by PUB to assist in the NFAT. The Panel's report to the Minister will address  
 57 the following items:

- 58 1. An assessment as to whether the needs for Hydro's Plan are thoroughly justified,  
 59 and sound, its timing is warranted, and the factors that Hydro is relying upon to prove  
 60 its needs are complete, reasonable and accurate. The assessment will take the  
 61 following factors into consideration:
  - 62 a. The alignment of the Plan to Hydro's mandate, as set out in Section 2 of *The*  
 63 *Manitoba Hydro Act*.
  - 64 b. The alignment of the Plan to Manitoba's Clean Energy Strategy and the  
 65 Principles of Sustainable Development as outlined in *The Sustainable*  
 66 *Development Act*.
  - 67 c. The extent to which the Plan is needed to address reliability and security  
 68 requirements of Manitoba's electricity supply.
  - 69 d. The reasonableness, thoroughness and soundness of all critical inputs and  
 70 assumptions Hydro relied upon for its justification of its needs. This should  
 71 include Hydro's planning load forecast and future load scenarios, its demand and  
 72 supply analysis, export expectations and commitments, and demand side  
 73 management and conservation forecasts.
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 75 2. An assessment as to whether the Plan is justified as superior to potential alternatives  
 76 that could fulfill the need. The assessment will take the following factors into  
 77 consideration:

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- a. If preferred and alternative resource and conservation evaluations are complete, accurate, thorough, reasonable and sound;
  - 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*;
  - 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;
  - d. The reasonableness of forecasted critical inputs including construction costs, opportunity export revenues, future fuel prices, electricity market price forecasts, the determinants of those values, and export volumes;
  - e. The reasonableness of the scope and evaluation of risks and the benefits proposed to arise from the development and the reasonableness and the reliability of Hydro's interpretation of the most likely future outcomes as a result of climate changes, interest rate fluctuations, export market prices, domestic load fluctuations, droughts, competing technologies, fuel prices, carbon pricing, technology developments, economic conditions, Hydro's transmission positions and other relevant factors;
  - f. The impact on domestic electricity rates over time with and without the Plan and with alternatives;
  - g. The financial and economic risks of the Plan and export contracts and export opportunity revenues in relation to alternative development strategies;
  - 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.

107 ***Independent Expert Consultants***

108 The Panel shall establish a process for the thorough review of any information that the Panel  
109 determines to be relevant to the conduct of the NFAT, including relevant Commercially Sensitive  
110 Information, as defined in Appendix A, subject to these Terms of Reference.

111 The Panel may use one or more independent expert consultant(s) for the purpose of the NFAT.  
112 In addition to such other questions and issues as the Panel may determine they should  
113 examine, the independent expert consultant(s) shall be expected to critically examine the  
114 following:

- 115  
116 (a) the high level forecasts of export revenues that are filed by Hydro and whether  
117 the forecasts appropriately and accurately reflect the export contracts, including  
118 Commercially Sensitive Information.  
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120 (b) the accuracy and reasonableness of Hydro's approach to producing an  
 121 assessment of financial risks (including drought), the assessment of which is derived  
 122 using Commercially Sensitive Information;

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 124 (c) the appropriateness and correct application of methodologies that cannot be  
 125 publicly disclosed by MH because they contain Commercially Sensitive Information,  
 126 such as whether Hydro's approach to comparing generation sequences follows sound  
 127 industry practice;

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 129 (d) whether high level summaries filed by Hydro of Net Present Values and Internal  
 130 Rates of Return which are derived from Commercially Sensitive Information reflect  
 131 sound assumptions and calculations; and

132  
 133 (e) the accuracy and soundness of Hydro's calculation of a consensus forecast of  
 134 future market prices for electricity and fuels which is derived from Commercially  
 135 Sensitive Information.

136 The PUB shall hire the independent expert consultant(s).

137 The independent expert consultant(s) shall provide a report(s) to be filed in evidence on the  
 138 public record, which shall contain their analysis of the submissions filed by Hydro, with sufficient  
 139 information to satisfy the Panel that the review was conducted with due diligence. The report(s)  
 140 shall not draw conclusions as to the needs for or alternatives to the Plan, which is the role of the  
 141 Panel.

142 The independent expert consultant(s) shall be available for cross-examination at the public  
 143 hearing, and shall be available as a resource to legal counsel for registered intervenors as  
 144 deemed necessary by the PUB to prepare for the cross-examination of Hydro witnesses on  
 145 Commercially Sensitive Information.

146 The independent expert consultant(s) may also provide such advice to the Panel, and file such  
 147 report(s) with the Panel *in camera*, that contain, reference, or analyse Commercially Sensitive  
 148 Information in sufficient detail to satisfy the Panel. Cross-examination of the independent expert  
 149 consultant(s) on such issues shall be permitted *in camera*.

150 The independent expert consultant(s) shall not quote in their publicly filed report(s)  
 151 Commercially Sensitive Information or information that would enable a third party to reverse-  
 152 engineer Commercially Sensitive Information ("reverse-engineer" means to discover, synthesize  
 153 or otherwise recreate the Commercially Sensitive Information following a detailed examination).  
 154 No public cross-examination of the independent expert consultant(s) shall take place with  
 155 respect to Commercially Sensitive Information. The independent expert consultant(s) will be  
 156 required to execute a non-disclosure agreement satisfactory to Hydro and the Panel.

157 **NOT IN SCOPE**

158 The following items are not in the scope of the NFAT:

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- The Bipole III transmission line and converter station project;

- 160 • The Pointe Du Bois project;
- 161 • The commercial arrangements between Hydro and its aboriginal partners for the
- 162 development of the proposed hydro-electric generating facilities (the impacts of these
- 163 are included in the cost of the projects that are part of the Plan);
- 164 • The environmental reviews of the proposed projects that are part of the Plan, including
- 165 Environmental Impact Statements (these will be conducted through individual processes
- 166 by the Manitoba Clean Environment Commission (“CEC”), and where possible the
- 167 impacts of the matters to be considered by the CEC are included in the costs of the
- 168 projects that are part of the Plan);
- 169 • Aboriginal consultation pursuant to Section 35 of the *Constitution Act* (this is conducted
- 170 as a separate Crown-Aboriginal consultation process);
- 171 • Any past Hydro development proposals or government assessments of past
- 172 development proposals, including past NFATs;
- 173 • Historic environmental costs.
- 174



175 **Appendix A**

176 **PROVISIONS FOR THE PROTECTION OF COMMERCIALY SENSITIVE INFORMATION:**

177 *Transparency*

178 The Panel is directed to conduct the NFAT in a transparent and public process. However, in  
 179 conducting the NFAT, the Panel is to ensure adequate protection of any information the  
 180 disclosure of which may reasonably be expected to cause undue financial loss to Manitoba  
 181 Hydro (“Hydro”) or any of its contractual counterparties or to harm significantly Hydro’s or its  
 182 contractual counterparties’ or domestic customers’ competitive position, including, but not  
 183 limited to, any sections of the following documents containing such information (collectively,  
 184 “Commercially Sensitive Information”):

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186 (a) any and all export contracts and term sheets now or hereafter in existence for the  
 187 purchase and sale of power and energy entered into between Hydro and its customers  
 188 in the United States of America, including but not limited to the export contracts and term  
 189 sheets commonly described as follows: Minnesota Power 250 MW Energy Exchange  
 190 Agreement; Minnesota Power 250 MW Power Sale Agreement; Wisconsin Public  
 191 Service 100 MW Power Sale Agreement; Wisconsin Public Service 108 MW Energy  
 192 Sale Agreement; Wisconsin Public Service Term Sheet, Northern States Power 375/325  
 193 MW System Power Sale Agreement; Northern States Power 125 MW System Power  
 194 Sale Agreement, and Northern States Power 350 MW Seasonal Diversity Agreement  
 195 (collectively, “Export Contracts”);

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197 (b) the internal, non-public load forecast prepared by Hydro on an annual basis  
 198 (collectively, “Load Forecast”); and

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200 (c) the Hydro document dated September 24, 2010 titled “THE 2010/11 POWER  
 201 RESOURCE PLAN, Report PPD #10-07” and any further existing or future power  
 202 resource plans hereinafter developed by Hydro (collectively, “Power Resource Plan”)

203 *Document Filings and Evidence*

204 In conducting the NFAT, the Panel shall be able to require the production, from Hydro, of any  
 205 documents and other such evidence as the Panel determines to be relevant to the conduct of  
 206 the NFAT within the scope of the Terms of Reference from the Province of Manitoba. The  
 207 procedures for filings and evidence shall be as set out below:

208 (a) Public Filings

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210 Any documents that do not contain Commercially Sensitive Information are to be filed on  
 211 the public record. As part of its NFAT submission Hydro shall file on the public record  
 212 copies of its Export Contracts, Load Forecast and Power Resource Plan, with details  
 213 considered by Hydro to be Commercially Sensitive Information redacted.

214  
215 To the extent that information necessary for the conduct of the NFAT cannot be made  
216 public due to the presence of Commercially Sensitive Information, Hydro shall file on the  
217 public record high level summaries and reports that incorporate the relevant information,  
218 at a level of summary and aggregation which will not disclose Commercially Sensitive  
219 Information.

220  
221 Any evidence before the Panel shall be public, other than evidence with respect to  
222 Commercially Sensitive Information, which testimony shall be received in camera as  
223 further described in (b) below. To the extent that it deems practical, the Panel shall limit  
224 the scope of *in camera* proceedings so that the major issues in the NFAT review can be  
225 canvassed and discussed in public.

226 (b) Confidential Filings

227 Any documents that the Panel determines to be relevant but that contain Commercially  
228 Sensitive Information are to be filed with the Panel in confidence in unredacted form,  
229 including unredacted copies of the Export Contracts, Load Forecast and Power  
230 Resource Plan.

231 On an *in camera* basis, the Panel may:

- 232
- 233 i) review the complete, unredacted versions of Hydro documents that contain
  - 234 Commercially Sensitive Information; and
  - 235
  - 236 ii) permit evidence with respect to Commercially Sensitive Information.

237 ***Access to In Camera Evidence***

238 Based on the *in camera* review, the Panel may choose to publish findings and conclusions  
239 about export revenues, forecast market prices and the like, to inform the public discussion and  
240 serve as inputs to further analysis and review by participants at the public hearing, or it may  
241 choose to reserve comment until the conclusion of the hearing.

242 The documents filed and evidence adduced *in camera* shall not be made public, other than  
243 through the high-level summaries as described above, and shall only be disclosed to or shared  
244 with the following persons, on the terms and conditions as noted below:

- 245
- 246 1. Members of the Panel, the Board's Executive Director and Board staff may
  - 247 review Commercially Sensitive Information and participate in the *in camera* process for
  - 248 the purpose of carrying out their specific duties with respect to the NFAT without having
  - 249 to sign an undertaking or a non-disclosure agreement.
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  - 251 2. Legal counsel of record of the Board and counsel for registered interveners may
  - 252 review Commercially Sensitive Information and participate in the *in camera* process
  - 253 upon execution of an undertaking to the Panel in a form agreeable to the Panel and
  - 254 Hydro.

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3. Any independent consultant(s) appointed by the Panel and any non-staff Panel advisors with a need to know, as determined by the Chair, may review Commercially Sensitive Information and participate in the *in camera* process upon execution of a non-disclosure agreement in a form agreeable to the Panel and Hydro.

Subject to the following dispute resolution provision, the Panel will not publish Commercially Sensitive Information in Orders or other public documents or include information that would enable a third party to reverse engineer Commercially Sensitive Information. The Panel will establish procedures to protect the documents and evidence from inadvertent disclosure and will instruct each individual who receives access to do the same. If the Panel so chooses, it may solicit Hydro's comments on particular documents that are in the process of being prepared in the interests of avoiding inadvertent disclosures.

***Dispute Resolution Regarding Commercially Sensitive Information***

If, during the *in camera* review, the Panel identifies any Commercially Sensitive Information, other than third party proprietary price forecasts, which the Panel considers would be beneficial to place on the public record at the NFAT, the Panel may refer those matters in dispute to a neutral third party to be agreed upon between the Panel and Hydro. The third party will receive written submissions and make a decision thereon, on an expedited basis, which decision will be given effect to in the proceedings before the Panel. In arriving at any such decision, the neutral third party shall specifically take into account the general undesirability of making disclosure of any Commercially Sensitive Information that may have been furnished to Hydro by third parties, in reliance upon contractual commitments by Hydro to maintain confidentiality, and the importance of maintaining such confidences.

## **Appendix “B” – Scope of Work**

### **Power Resource Planning and Economic Evaluation**

1. From a supply perspective, assess the extent to which the Plan addresses the reliability and security requirements of Manitoba’s electricity supply.
2. Assess whether Manitoba Hydro’s approach to comparing generation sequences follows sound industry practice.
3. Review reservoir operations of Lake Winnipeg for optimal value.
4. Review Manitoba Hydro’s NFAT filings with respect to the Lake Winnipeg and Upper Nelson River Water Regime change and the potential mitigation costs to the NFAT projects.
5. Review the potential global warming impacts on water supply/river flows/lake and reservoir evaporation.
6. Develop power resource plans and alternatives, including identifying other scenarios that could potentially compete on an economic basis with Manitoba Hydro’s Preferred Development Plan.
7. Incorporate exports (bilateral contracts and opportunity market pricing) into power resource planning.
8. Evaluate the accuracy and completeness of Manitoba Hydro’s export assumptions into MISO and other jurisdictions.
9. Comment on the practical role of merchant trading and energy imports.
10. Examine the No New Generation scenario and the potential for extended use of imports to meet Manitoba Hydro’s domestic load requirements.
11. For all scenarios addressed, define the lower quartile, median and upper quartile impacts of natural gas supply pricing, coal pricing and wind pricing.
12. Address the relative generation and integration costs of hydro, wind, natural gas turbines (single-cycle and combined-cycle) and Demand-Side Management.
13. Assess the maximum deferral prospects for Keeyask G.S. and/or Conawapa G.S.
14. Comment on climate change impacts on energy supply and demand.
15. Test Manitoba Hydro’s alternative scenarios and any new scenarios created for drought impacts.

16. Review and assess the reasonableness and completeness of Manitoba Hydro's sensitivity analysis of alternative development plans. Perform additional sensitivity analysis as required.
17. Analyse the In-service cost and rate impact on domestic customers of the Preferred Development Plan and alternatives.
18. Analyse the net and gross marginal cost of the Preferred Plan and Alternatives;
19. Analyse the net present value of hydro power and natural gas generation;
20. Assess the reasonableness of the Weighted Average Cost of Capital (WACC) approach, including consideration of different capital structures.
21. Analyse the Internal Rate of Return (IRR), including an evaluation against hurdle rates.
22. Review Manitoba Hydros IRRs against prior IRR values presented in public filings.
23. Upon prior approval by the NFAT Panel, address any other issues that may be identified in reviewing Manitoba Hydro's evidence or are requested by the NFAT Panel.

### **Business Case and Risk Assessment**

1. Analyse the financial and economic risks of the Preferred Development Plan and export contracts and export opportunity revenues in relationship to alternative development strategies.
2. Assess whether the high-level summaries filed by Manitoba Hydro of net present value and internal rates of return reflect sound assumptions and calculations.
3. Enumerate any special consideration with respect to Crown-owned utility operations.
4. Address estimate uncertainties involving large complex hydro projects.
5. Examine and evaluate the treatment of risk in Manitoba Hydro's development of Power Resource Plans and resource scenario models. Incorporate expert opinions on flood and drought risks and optimal strategy.
6. Analyse the market value of clean energy from hydro power during various seasonal and peak or off-peak periods.
7. Address the future U.S. versus Canadian export opportunities.
8. Review Manitoba Hydro's filings and assess the accuracy, reasonableness and completeness of the relative values that Manitoba Hydro places on capital costs/energy supply.
9. Review the accuracy, reasonableness and completeness of presented alternative scenarios including an assessment of key variables such as:
  - (a) Time Frames [80 years];

- (b) Alternative Time Frames of 20/40 years;
  - (c) Interest rates;
  - (d) Inflation;
  - (e) Discount rates;
  - (f) Present value calculations; and
  - (g) Internal rate of return calculations.
10. Review and compare the discount rate applied in the current analysis with prior discount rates used by Manitoba Hydro to assess consistency and reasonableness of the approach.
11. Review all significant scenarios employing other methodologies, including:
- (a) in-service rate impacts; and
  - (b) the net present value of costs.
12. Within each scenario look for a clear business and value proposition for Manitoba ratepayers as well as Manitoba Hydro.
13. Test each scenario for potential risks, including:
- (a) Lower export market prices;
  - (b) Higher interest rates;
  - (c) Lower or higher domestic load growth;
  - (d) Droughts;
  - (e) Competing technologies;
  - (f) Fuel price changes;
  - (g) Carbon pricing;
  - (h) Government and regulatory policy change;
  - (i) Construction cost escalator;
  - (j) Economic conditions;
  - (k) Infrastructure failure; and
  - (l) Any other major risks identified.

14. Upon prior approval by the NFAT Panel, address any other issues that may be identified in reviewing Manitoba Hydro's evidence or are requested by the NFAT Panel.

### **Transmission Economics**

1. Review and assess the impact of Manitoba Hydro's transmission positions on Manitoba Hydro's assumptions as to export revenue.
2. Review and assess Manitoba Hydro's contemplated plan to partially fund U.S. transmission infrastructure and the financial benefits to be derived from such plan.
3. Upon prior approval by the NFAT Panel, address any other issues that may be identified in reviewing Manitoba Hydro's evidence or are requested by the NFAT Panel.

### **Review of Manitoba Hydro's Export Contracts**

1. Review and assess Manitoba Hydro's export contracts with U.S. counterparties for:
  - (a) Firm energy commitments;
  - (b) Firm energy pricing;
  - (c) Peak demand opportunity market sales;
  - (d) Off-peak period opportunity market sales;
  - (e) Adverse water clauses;
  - (f) Drought relief;
  - (g) Clean energy guarantees;
  - (h) Treatment of environmental attributes; and
  - (i) Any other commercial obligations in the contracts and the implications on Manitoba Hydro and its counterparties; and
2. Upon prior approval by the NFAT Panel, address any other issues that may be identified in reviewing Manitoba Hydro's evidence or are requested by the NFAT Panel.

### **Financial Modelling**

1. Development a financial model that would have the flexibility to change basic assumptions on factors affecting costs to Manitoba Hydro and MISO utility competitive market alternatives. The model should be able to quickly determine the metrics evaluating the timing and type of resources that could be in the Manitoba Hydro Development Plan, and should meet the following requirements:
  - (a) The model is expected to be set up within excel spreadsheets.
  - (b) The model will not require detailed market simulation software to be used with each alternative business cases.

- (c) The model is expected to be used by La Capra Associates staff to support its independent analysis and report as well as examine cases desired by the NFAT and Interveners.
  - (d) Model documentation will be prepared.
2. Upon prior approval by the NFAT Panel, address any other issues that may be identified in reviewing Manitoba Hydro's evidence or are requested by the NFAT Panel.