

MANITOBA PUBLIC UTILITIES BOARD

Re: MANITOBA HYDRO

NEEDS FOR AND ALTERNATIVES TO REVIEW OF MANITOBA HYDRO'S

PREFERRED DEVELOPMENT PLAN

Regis Gosselin - Chairperson

Marilyn Kapitany - Board Member

Larry Soldier - Board Member

Richard Bel - Board Member

Hugh Grant - Board Member

HELD AT:

Public Utilities Board

400, 330 Portage Avenue

Winnipeg, Manitoba

May 12, 2014

Pages 10315 to 10533

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1		APPEARANC	ES	
2	Bob Peters	(np))Board Counsel	
3	Sven Hombach)	
4				
5	Patti Ramage	(np))Manitoba Hydro	
6	Marla Boyd	(np))	
7	Douglas Bedford	(np))	
8	Helga Van Iderst	ine (np))	
9	Jennifer Moroz	(np))	
10	Odette Fernandes)	
11	Janet Mayor)	
12	Jack London	(np))	
13	Brad Regehr)	
14				
15	Byron Williams	(np)) CAC	
16	Meghan Menzies)	
17	Aimee Craft	(np))	
18				
19	William Gange) GAC	
20	Peter Miller)	
21				
22	Antoine Hacault	(np)) MIPUG	
23				
24	George Orle) MKO	
25	Michael Anderson	(np))	

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10317
                   APPEARANCES (Con't)
2
3 Jessica Saunders
                                ) MMF
4 Corey Shefman (np)
                               )
5 Tony Marques
                                )
6
7 Christian Monnin
                           ) IEC
8 Michael Weinstein (np)
                                )
9
10
11
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10321 1 2 3 --- Upon commencing at 9:01 a.m. 4 5 THE CHAIRPERSON: Good morning. believe we're ready to begin. Mr. Hombach...? 7 MR. SVEN HOMBACH: Good morning, Mr. Chair and members of the panel. Today is reserved for the evidence of Rick Hendriks, a witness testifying on behalf of the Manitoba Metis Federation to 10 11 macroenvironmental and socioeconomic matters. I would 12 also like to advise the parties that at 12:45 today a 13 presenter has been scheduled, Ms. Lorna Kopelow. 14 Now, before we turn it over to Ms. Saunders to have Mr. Hendriks sworn and qualified, I am 15 16 advised by Manitoba Hydro counsel that Manitoba Hydro has to acknowledge some undertakings. 17 18 MS. ODETTE FERNANDES: Thank you, Mr. 19 Hombach. Yes, on Thursday late afternoon, Manitoba Hydro did file some responses to two (2) undertakings. 21 The first one (1) was the response to Manitoba Hydro 22 Undertaking number 139, which was for Manitoba Hydro to 23 confirm the earliest required in-service date for 24 Keeyask from both an energy and capacity perspective if 25 the diversity agreements were extended beyond 2024/'25.

10322 And I expect that would be marked as Manitoba Hydro Exhibit number 194. 3 MR. KURT SIMONSEN: That's correct, thank you. 5 6 --- EXHIBIT NO. MH-194: Response to Undertaking 139 7 MS. ODETTE FERNANDES: And then we also filed a response to Manitoba Hydro Undertaking number 140, which was for Manitoba Hydro to confirm if it has 10 considered extending the diver -- diversity agreements, 11 12 and that would be Manitoba Hydro Exhibit number 195. 13 MR. KURT SIMONSEN: Correct, thanks. 14 15 --- EXHIBIT NO. MH-195: Response to Undertaking 140 16 17 MS. ODETTE FERNANDES: And also, Mr. 18 Chairman, in terms of an introduction we do have Mr. Brad Regehr sitting directly in front of me, and he will be cross-examining on behalf of Manitoba Hydro for 21 the macroenvironmental impact report from Mr. Hendriks. 22 THE CHAIRPERSON: Good morning, Ms. 23 Saunders. 24 MS. JESSICA SAUNDERS: Good morning, Mr. Chair, and members of the panel. Jessica Saunders,

- 1 for the record. Attending with me today is Mr. Tony
- 2 Marques of our firm. On behalf of our client, the
- 3 Manitoba Metis Federation, we are pleased to be calling
- 4 the evidence of Rick Hendriks on macroenvironmental and
- 5 socioeconomic matters. I will be leading Mr.
- 6 Hendriks's evidence and will be assisted by Mr. Marques
- 7 today. We are pleased that Mr. Marques will be also
- 8 joining us tomorrow to lead the evidence of Whitfield
- 9 Russell Associates.
- 10 So with that, I will start by addressing
- 11 a few administrative matters in refiling and
- 12 introducing some exhibits. I spoke with Mr. Simonsen
- 13 before hearings, and so he does have my documents to
- 14 save time and me walking over, and to save him a walk.
- 15 But I will introduce them on the record.
- 16 The first -- the MMF provided a
- 17 submission May 9th on errata in Camerado's reports,
- 18 minor errors and corrections and references, et cetera,
- 19 which do not change the conclusions of the reports. We
- 20 provided versions of these reports and all of the
- 21 documents we are seeking to refile to the parties prior
- 22 to proceedings and to Ms. Villegas, so she does have
- 23 copies of them.
- 24 So firstly is the -- if I guess Mr.
- 25 Simonsen would just confirm, I'll begin by introducing

10324 the revised report evaluating macroenvironmental impact, and we would seek to file that as revised MMF Exhibit 26. 3 5 --- EXHIBIT NO. MMF-26: Revised report evaluating 6 macroenvironmental impact 7 9 MS. JESSICA SAUNDERS: As well, we 10 would like to file the revised report evaluating the 11 economic -- the socioeconomic, rather, implications of additional wind resources in Manitoba as revised MMF 13 Exhibit 13. 14 15 --- EXHIBIT NO. MMF-13: Revised report evaluating 16 the socioeconomic 17 implications of additional 18 wind resources in Manitoba 19 20 MR. KURT SIMONSEN: Correct. 21 MS. JESSICA SAUNDERS: And we would 22 also like to file the revised CV of Rick Hendriks as 23 revised MMF Exhibit 19. 24 25 --- EXHIBIT NO. MMF-19: Revised CV of Rick Hendriks

10325 1 MR. KURT SIMONSEN: Correct. you. 3 MS. JESSICA SAUNDERS: Lastly, we would like to file the MMF Exhibit 30, titled, 'The NFAT 5 Review Macroenvironmental and Socioeconomic Considerations' Power Point presentation to be 7 delivered today by Mr. Hendriks. 8 --- EXHIBIT NO. MMF-30: 'The NFAT Review 9 10 Macroenvironmental and 11 Socioeconomic 12 Considerations' PowerPoint 13 presentation 14 15 MR. KURT SIMONSEN: Thank you. 16 MS. JESSICA SAUNDERS: With that, I 17 would ask that Mr. Simonsen please assist in, I 18 believe, affirming this witness. 19 MMF PANEL 1 - SOCIOECONOMIC AND MACROENVIRONMENTAL 21 MATTERS: 22 23 RICK HENDRIKS, Affirmed (Qual.) 24 25 QUALIFICATION OF WITNESS:

- 1 MS. JESSICA SAUNDERS: Thank you, Mr.
- 2 Simonsen. Mr. Hendriks, you are the author of two (2)
- 3 reports: the first, 'Evaluating Macro Environmental
- 4 Impact', and the second, 'Evaluating the Macro
- 5 Environmental and Socioeconomic Implications of
- 6 Additional Wind Resources in Manitoba', correct?
- 7 MR. RICK HENDRIKS: Yes.
- 8 MS. JESSICA SAUNDERS: Mr. Hendriks,
- 9 you also provided a number of Information Requests on
- 10 the Applicant, Manitoba Hydro's, pre-filed written
- 11 evidence, correct?
- 12 MR. RICK HENDRIKS: Correct.
- MS. JESSICA SAUNDERS: In addition, you
- 14 also prepared responses to a number of Information
- 15 Requests from Manitoba Hydro on your pre-filed written
- 16 evidence.
- 17 Is that correct?
- 18 MR. RICK HENDRIKS: Yes.
- 19 MS. JESSICA SAUNDERS: You can confirm
- 20 that your pre-filed written evidence, that being both
- 21 of your reports and to the Information Requests you
- 22 prepared and responded to, were prepared under your
- 23 direction and control?
- MR. RICK HENDRIKS: Yes.
- MS. JESSICA SAUNDERS: Were there any

- 1 others that assisted in the preparation of your pre-
- 2 filed written evidence?
- 3 MR. RICK HENDRIKS: Yes, there were two
- 4 (2) persons, Meghan Dalrymple and her assistant at
- 5 MSES. And they only reviewed the very final versions
- 6 of my reports.
- 7 MS. JESSICA SAUNDERS: And is it your
- 8 understanding, Mr. Hendriks, that those are also
- 9 consultants retained to assist the MMF in the NFAT?
- MR. RICK HENDRIKS: Yes, those are two
- 11 (2) -- two (2) consultants retained by the MMF.
- MS. JESSICA SAUNDERS: Thank you.
- 13 There was errata filed with respect to your evidence.
- 14 And apart from that, you can confirm
- 15 that your pre-filed written evidence is accurate, to
- 16 the best of your knowledge and ability?
- 17 MR. RICK HENDRIKS: Yes.
- MS. JESSICA SAUNDERS: And, Mr.
- 19 Hendriks, in preparing this evidence, would you agree
- 20 that you relied on your expert knowledge and
- 21 understanding of the socioeconomic implications and
- 22 environmental consequences for Aboriginal communities
- 23 in both the development of large-scale hydro
- 24 developments and alternatives to large-scale hydro
- 25 developments?

- 1 MR. RICK HENDRIKS: Yes.
- MS. JESSICA SAUNDERS: With respect to
- 3 your education background, you hold a bachelor of
- 4 engineering and society, civil, from McMaster
- 5 University, which you obtained in 1996, correct?
- MR. RICK HENDRIKS: Correct.
- 7 MS. JESSICA SAUNDERS: You also hold a
- 8 bachelor of science, honours, in psychology from the
- 9 McMaster University as well, which you received in
- 10 2009?
- MR. RICK HENDRIKS: Correct.
- MS. JESSICA SAUNDERS: In your CV you
- 13 summarize that you were trained in engineering science
- 14 and social science.
- 15 Is that correct?
- MR. RICK HENDRIKS: That is correct.
- MS. JESSICA SAUNDERS: I understand
- 18 that throughout your more recent professional
- 19 experience, and at the present time, you do not offer
- 20 or provide engineering services to your clients, and
- 21 you do not hold a Certificate of Authorization from the
- 22 Professional Engineers of Ontario.
- 23 Is that correct?
- MR. RICK HENDRIKS: That is correct.
- MS. JESSICA SAUNDERS: And from your

- 1 CV, it appears that you provided mostly management,
- 2 consulting, and strategic planning services to clients
- 3 on energy plans and proposals.
- 4 Is that fair to say?
- 5 MR. RICK HENDRIKS: Yes.
- 6 MS. JESSICA SAUNDERS: I take it that
- 7 is more advising clients on policy matters than on
- 8 engineering-type services?
- 9 MR. RICK HENDRIKS: Yes, policy
- 10 matters, environmental assessment, and negotiation-
- 11 related matters.
- 12 MS. JESSICA SAUNDERS: And before
- 13 moving to your professional experience, I just thought
- 14 it to worth note that drawing on your fifteen (15)
- 15 years of experience in the area that you've just
- 16 mentioned, you've also given a number of presentations
- 17 throughout your career to First Nations, government
- 18 agencies, and associations on the subject of
- 19 environmental assessment and impacts to Aboriginal
- 20 communities, correct?
- 21 MR. RICK HENDRIKS: Correct.
- MS. JESSICA SAUNDERS: Moving to your
- 23 professional experience, you worked for Halsell
- 24 Associates Consulting Engineers from 1997 to 1999,
- 25 correct?

- 1 MR. RICK HENDRIKS: Yes.
- MS. JESSICA SAUNDERS: What kind of
- 3 work did you do there?
- 4 MR. RICK HENDRIKS: That was an
- 5 engineering consulting firm. I was responsible for
- 6 engineering services in relation to the build
- 7 environment; so structural issues, building science,
- 8 contracting, construction management.
- 9 MS. JESSICA SAUNDERS: To confirm
- 10 though, the projects listed in your CV, which we will
- 11 get to in a minute, are not in relation to any of your
- 12 work with Halsell Consulting Engineers, but with your
- 13 other professional experience?
- 14 MR. RICK HENDRIKS: That is correct.
- MS. JESSICA SAUNDERS: And you then
- 16 worked with the Innu Nation from 1999 to 2002, correct?
- 17 MR. RICK HENDRIKS: Yes.
- 18 MS. JESSICA SAUNDERS: Would you please
- 19 describe the work that you did with the Innu Nation?
- 20 MR. RICK HENDRIKS: With Innu Nation, I
- 21 was responsible for their engagement in the
- 22 environmental assessment process for proposed large-
- 23 scale hydroelectric complex on the Churchill River. I
- 24 was also responsible for their engagement with the
- 25 proponent, in terms of an impact benefit agreement,

- 1 particularly in relation to environmental matters, but
- 2 also, to some extent, in relation to other matters. It
- 3 was a team approach.
- I was also responsible there for a study
- in relation to export markets. So we were evaluating
- 6 the potential of the project as an export project and
- 7 whether or not the nation should consider an investment
- 8 position in the project.
- 9 MS. JESSICA SAUNDERS: And I do believe
- 10 we've heard a bit about the Lower Churchill
- 11 hydroelectric generation project, but could you just
- 12 confirm the size of that project, in terms of
- 13 megawatts?
- MR. RICK HENDRIKS: Yes. The -- the
- 15 project went through several evolutions. The initial
- 16 project was -- involved two (2) river diversions in --
- 17 into a reservoir of an existing project, an expansion
- 18 of the capacity by a thousand megawatts at the existing
- 19 facility, and then two (2) downstream facilities, 2,200
- 20 megawatts and 800 megawatts.
- 21 The revised version that ended up being
- 22 approved consisted only of the downstream facilities at
- 23 2,200 megawatts and 800 megawatts approximately. There
- 24 was also a transmission line component to that project
- 25 in order to export the power to the Maritimes.

- 1 MS. JESSICA SAUNDERS: Thank you. You
- 2 then worked for Chignecto Consulting Group from 2002 to
- 3 2009.
- 4 What position did you hold and what kind
- 5 of work did you do in that position?
- 6 MR. RICK HENDRIKS: I was -- I was an
- 7 associate with -- with Chigneco -- Chignecto Consulting
- 8 Group. I was responsible there for their engagement
- 9 with several Aboriginal clients in relation to impact
- 10 benefit agreements and environmental assessments of
- 11 large-scale projects: hydro, mining, and related
- 12 infrastructure, such as transportation and transmission
- 13 lines.
- 14 MS. JESSICA SAUNDERS: And in this
- 15 position I note that you also assisted the Smith's
- 16 Landing First Nation in the Atco-TransCanada Slave
- 17 River hydro development starting in 2007, correct?
- 18 MR. RICK HENDRIKS: That is correct.
- 19 MS. JESSICA SAUNDERS: Can you provide
- 20 us a brief description of that project and the work
- 21 that you completed for the First Nation in that
- 22 project?
- 23 MR. RICK HENDRIKS: Yes. I was
- 24 primarily responsible for three (3) things. The first
- 25 item was the negotiation of a environmental baseline

- 1 study, an engineering feasibility study plan; so,
- 2 basically, what would be the studies that would be
- 3 undertaken in order to prepare for the project. Those
- 4 negotiations took place over a couple of years.
- 5 I was also responsible for an issue
- 6 scoping study collaboratively with two (2) community
- 7 members and -- and a colleague from another firm in
- 8 order to understand the -- the context of the community
- 9 at the time, prior to the -- to the project, in order
- 10 to design those studies and plan for the project.
- 11 And also, I undertook a systematic
- 12 review of the -- of the literature related to the
- 13 conditions in the river prior to the project
- 14 proceeding. Now, the project did not end up
- 15 proceeding. It was later withdrawn by the proponent.
- 16 MS. JESSICA SAUNDERS: And also during
- 17 your time at Chiquecto, you assisted the Attawapiskat
- 18 First Nation in the Victor Diamond Project from 2003 to
- 19 2008, correct?
- 20 MR. RICK HENDRIKS: That is correct.
- 21 MS. JESSICA SAUNDERS: Could you please
- 22 provide a brief description of this project and the
- 23 work you completed on behalf of Attawapiskat First
- 24 Nation in that project?
- 25 MR. RICK HENDRIKS: Yes. I had a wide

- 1 range of responsibilities in Attawapiskat, including
- 2 negotiation of the environmental protection chapter in
- 3 an impact benefit agreement; engagement of an Elders
- 4 committee, in terms of preparation for the project and
- 5 -- and gaining Aboriginal perspectives on the projects
- 6 and its environmental and social effects.
- 7 I also was involved in a committee with
- 8 -- a joint committee with the proponent, in terms of
- 9 preparing for the -- for the project. I was
- 10 responsible -- I had primary responsibility for all
- 11 submissions to the regulatory process on behalf of the
- 12 First Nation.
- In terms of follow-up, I worked with a
- 14 colleague to design a comprehensive socioeconomic
- 15 monitoring framework to be put in place following the
- 16 project. And I also negotiated with the Government of
- 17 Canada and with the proponent a follow-up program
- 18 agreement dealing with biophysical matters and the
- 19 implications of those matters for land use.
- 20 MS. JESSICA SAUNDERS: And after your
- 21 work with Chignecto, you founded Camerado Energy
- 22 Consulting in 2009, correct?
- 23 MR. RICK HENDRIKS: That is correct.
- 24 MS. JESSICA SAUNDERS: And it's been a
- 25 busy few years for Camerado. Most of your related

- 1 professional experience has occurred in the time that
- 2 you founded and operated Camerado.
- 3 So starting with your work with Treaty 8
- 4 Alberta Nations in 2010/2011, can you provide us of the
- 5 work that you completed for Treaty 8 Nations?
- 6 MR. RICK HENDRIKS: Yes. Treaty 8
- 7 Nations were a registered Intervenor in a process with
- 8 the Alberta Utilities Commission, looking at the
- 9 feasibility of additional hydroelectric development in
- 10 the province. And I was retained to prepare a report
- 11 and make an -- make oral testimony to the Commission in
- 12 relation to two (2) -- two (2) areas: one (1), the --
- 13 the regulatory framework for hydroelectric development,
- 14 what should that look like, what can we learn from case
- 15 studies in other regions; and then the assessment
- 16 process. Again, how should we assess -- how should we
- 17 assess these projects in an environmental assessment
- 18 stetting -- setting.
- 19 And again, I -- I made use of the best
- 20 practices and case studies in other jurisdictions. And
- 21 portions of my advice were accepted by the Utilities
- 22 Commission in their final pro -- final report.
- 23 MS. JESSICA SAUNDERS: And would it be
- 24 fair to say that in your role in assisting the Treaty 8
- 25 Alberta Nations in the Alberta Public Utilities

- 1 Commission, you provided written evidence and oral
- 2 testimony?
- 3 Would that be fair to say?
- 4 MR. RICK HENDRIKS: Yes, that would be
- 5 fair.
- 6 MS. JESSICA SAUNDERS: And you also
- 7 assisted the Robinson-Huron Treaty First Nations in
- 8 2010 to 2013, correct?
- 9 MR. RICK HENDRIKS: Yes.
- 10 MS. JESSICA SAUNDERS: Could you just
- 11 provide a brief descr -- description of the work that
- 12 you completed on their behalf?
- 13 MR. RICK HENDRIKS: Yes, I was retained
- 14 to investigate the potential of a compensation claim in
- 15 relation to a historic transmission line; so a
- 16 transmission line that had been built several decades
- 17 before. And there was also a proposal for an
- 18 additional transmission line pursuant to the province's
- 19 integrated power system plan.
- 20 And so I was asked to look at the
- 21 potential for that claim. So that involved evaluating
- 22 what the actual impacts were on -- on the communities
- 23 and their land use; what the prospects were for the
- 24 success of that claim; and what the value of that claim
- 25 might be. And I provided a written report to the

- 1 client in that respect.
- 2 MS. JESSICA SAUNDERS: And I note that
- 3 you also assisted the Mikisew Cree First Nation, and as
- 4 well the Wabun Tribal Council on -- on projects as
- 5 well. But, Mr. Hendriks, I will move you to your most
- 6 recent work.
- 7 You assisted the Treaty 8 Tribal
- B Association in the BC Hydro Site C Clean Energy Project
- 9 from 2010 to 2014, correct?
- 10 MR. RICK HENDRIKS: Yeah, that is
- 11 correct.
- 12 MS. JESSICA SAUNDERS: Can you please
- 13 provide a brief description of the BC Site C Project
- 14 and the work that you completed on behalf of the
- 15 association in that matter?
- 16 MR. RICK HENDRIKS: Sure. I was
- 17 involved in primar -- primarily in three (3) ways: 1)
- 18 in negotiation of a -- a baseline study and a baseline
- 19 study arrangement with the Proponent, a funding
- 20 arrangement. They supported the Nations in terms of
- 21 undertaking the studies that the Nations wanted to
- 22 take.
- 23 Secondly, I had primary responsibility
- 24 for all written submissions to the -- to the EA process
- 25 beginning in 2011, until the hearings were completed

- 1 recently. I also was involved in policy and planning
- 2 matters, particularly in relation to engagement in --
- 3 with the IRP process. So review of the integrated
- 4 resource plan in British Columbia, as well as the
- 5 industrial electricity policy review, both of which had
- 6 significant implications for the development of the
- 7 Site C Project. And my role there was to intervene
- 8 appropriately in order to put forward the perspectives
- 9 of my client.
- 10 MS. JESSICA SAUNDERS: And in that did
- 11 you also provide written submissions as well as oral
- 12 submissions --
- MR. RICK HENDRIKS: Yes.
- 14 MS. JESSICA SAUNDERS: -- to the
- 15 regulatory process?
- 16 MR. RICK HENDRIKS: Yes, to -- to the
- 17 IRP process it was just a written submission process.
- 18 The indus -- industrial electricity policy review was a
- 19 written hearing with cross-examination. And finally,
- 20 the -- the environmental assessment process was a
- 21 written and oral submission process. And the panel
- 22 issued its report this past Thursday and accepted
- 23 several aspects of the advice that I had put forward.
- MS. JESSICA SAUNDERS: And if you don't
- 25 mind, Mr. Hendriks, could you just confirm the

- 1 hydroelectric development involved in that case?
- 2 What was the -- the proposed size of it?
- 3 MR. RICK HENDRIKS: Oh, the Site C
- 4 Project is a proposed 1,100 megawatt facility on the
- 5 Peace River in BC.
- 6 MS. JESSICA SAUNDERS: Mr. Chair, we've
- 7 heard a lot from Mr. Hendriks and his experience.
- 8 Before I seek to outline the areas that I'm seeking to
- 9 qualify him in, I'll just briefly summarize that
- 10 experience that I would like noted.
- 11 So, Mr. Hendriks, to summarize, in going
- 12 through most of your professional experience and the
- 13 projects you've worked on, would it be fair to say that
- 14 a majority of your professional experience has been
- 15 spent in the review, assessment, management, and
- 16 monitoring of the environmental socioeconomic
- 17 challenges and opportunities in the development of
- 18 large-scale hydro projects?
- 19 MR. RICK HENDRIKS: That is correct.
- 20 MS. JESSICA SAUNDERS: And as part of
- 21 your experience in assisting clients in the review of
- 22 these large-scale hydro projects, particularly in the
- 23 Site C hearings in 2014 and to some extent, we heard,
- 24 in the Lower Churchill hearings in 2011, is it fair to
- 25 say that you have examined electricity resource

- 1 alternatives, such as wind?
- MR. RICK HENDRIKS: Yes, both of those
- 3 processes involved a -- a extensive look at
- 4 alternatives to the proposed project, including wind
- 5 development.
- 6 MS. JESSICA SAUNDERS: And Mr.
- 7 Hendriks, what credentials -- you've -- you have
- 8 indicated some of your credentials, but if you wouldn't
- 9 mind to just summarize the credentials you have in
- 10 relation to electricity resource planning?
- 11 MR. RICK HENDRIKS: My primarily -- my
- 12 primary reason for engaging in energy -- excuse me,
- 13 energy resource planning processes is strategic. That
- 14 is, my clients are interested in knowing whether or not
- 15 their project might be feasible, economically and
- 16 otherwise. They might want to change the course of the
- 17 development or policy process to meet their needs, or
- 18 they may be interested in simply improving that process
- 19 from a consultation basis, or from an environmental
- 20 protection basis.
- 21 MS. JESSICA SAUNDERS: And to
- 22 summarize, you've provided oral as well as written
- 23 submissions on behalf of clients in other occasions,
- 24 including the Alberta Public Utilities Commission
- 25 inquiry on hydroelectric power generation in 2011 --

- 1 2010, sorry, the Joint Review Panel hearings for the
- 2 Lower Churchill Hydroelectric Generation Project in
- 3 2011, as well as the Joint Review Panel hearings on the
- 4 Site C Clean Energy Project in 2013 and '14?
- 5 MR. RICK HENDRIKS: Yes, that is
- 6 correct.
- 7 MS. JESSICA SAUNDERS: With that, Mr.
- 8 Chair and members of the panel, subject to any
- 9 questions you and the other parties may have, having
- 10 heard Mr. Hendriks outline his educational background,
- 11 his work on related projects, and the related testimony
- 12 that he has provided, we would seek to qualify him as
- 13 having expert knowledge and understanding of the
- 14 socioeconomic implications and environmental
- 15 consequences for Aboriginal communities in both the
- 16 development of large scale hydroelectric developments
- 17 and alternatives to large scale hydroelectric
- 18 developments, such as wind.
- 19 As well, we would seek to qualify Mr.
- 20 Hendriks as having expert knowledge necessary to
- 21 appreciate the policy and planning aspects of large-
- 22 scale hydroelectric developments.

23

24 (BRIEF PAUSE)

- 1 THE CHAIRPERSON: Ms. Saunders, could
- 2 you repeat your first sentence -- the very first
- 3 sentence? You indicated review and -- review and
- 4 management and monitoring of environmental review.
- 5 Could you -- could you repeat that sentence, please,
- 6 where you summarized Mr. Hendriks's qualifications?
- 7 MS. JESSICA SAUNDERS: What we're
- 8 seeking to qualify him in, or --
- 9 THE CHAIRPERSON: No, no --
- 10 MS. JESSICA SAUNDERS: -- oh, sorry,
- 11 his quali --
- 12 THE CHAIRPERSON: -- no, the very first
- 13 one you -- you had said you had summarized -- you
- 14 provided a summary before you described the areas you
- 15 wanted him qualified.
- 16 MS. JESSICA SAUNDERS: Yeah. That it
- 17 was -- he -- his experience has been spent in the
- 18 review, assessment, planning, management, and
- 19 monitoring of the environmental socioeconomic
- 20 challenges and opportunities in the development of
- 21 large-scale hydro projects.
- THE CHAIRPERSON: And the two (2)
- 23 examples you cited were Lower Churchill, and what was
- 24 the other one?
- 25 MS. JESSICA SAUNDERS: And the Site C

- 1 Clean Energy Project out of BC.
- THE CHAIRPERSON: Thank you for that.
- 3 I'd like to canvass the Intervenors, please, starting
- 4 with you, Mr. Gange, please?
- 5 MR. WILLIAM GANGE: GAC has no
- 6 objections to the qualifications.
- 7 THE CHAIRPERSON: Thank you, Mr. Gange.
- 8 Mr. Orle, please?
- 9 MR. GEORGE ORLE: MKO has no objections
- 10 to the qualification of the witness as an expert.
- 11 THE CHAIRPERSON: Thank you, Mr. Orle.
- 12 I overlooked you, Ms. Menzies, sorry.
- MS. MEGHAN MENZIES: No, it's just that
- 14 Mr. Gange is advising me that perhaps you're not
- 15 interested in my opinion. No. CAC (Manitoba) has no
- 16 objections to the witness as qualified.
- 17 THE CHAIRPERSON: Thank you, Ms.
- 18 Menzies. Me. Monnin, s'il vous plait?
- 19 MR. CHRISTIAN MONNIN: Merci, M.
- 20 President. The independent expert consultants have no
- 21 objections.
- THE CHAIRPERSON: Merci, Me. Monnin.
- 23 And now Manitoba Hydro, please?
- 24 MS. JANET MAYOR: Manitoba Hydro
- 25 doesn't have any objection to the qualifications.

10344 1 THE CHAIRPERSON: Thank you. 2 And Mr. Hombach, any questions at all? 3 MR. SVEN HOMBACH: No concerns and no questions, thank you. 5 6 (BRIEF PAUSE) THE CHAIRPERSON: The panel agrees that we will accept Mr. Hendriks for the areas of expertise that has been outlined by Ms. Saunders. With that, 10 I'll turn the microphone back to you, Ms. Saunders. 11 12 Thank you. 13 14 EXAMINATION-IN-CHIEF BY MS. JESSICA SAUNDERS: 15 MS. JESSICA SAUNDERS: Merci, M. 16 President. I had to say that one (1) time. I've listened enough that I mastered it and I had to say it 17 18 once on the record. With that, Mr. Hendriks, would you 19 please begin your presentation? 20 MR. RICK HENDRIKS: Merci, mesdames et 21 messieurs. I will now continue in English. Good 22 morning, Mr. Chairman, members of the Board, Manitoba 23 Hydro, independent experts, and Intervenors. 24 I'm glad that I could make it here to be with you this morning. I'd like to begin by

- 1 acknowledging the Manitoba Metis and the Treaty 1 First
- 2 Nations on whose -- whose territory we meet this
- 3 morning.
- 4 I know that you are at the -- nearing
- 5 the end of a very long process, soon to be followed by
- 6 an intense deliberation and report writing, and my aim
- 7 is not to keep you from your work, but to give you a
- 8 few further things for consideration.
- 9 I'm sorry. All -- all of you have
- 10 copies of my presentation? Yes. Recognizing that
- 11 there have been some developments over the course of
- 12 the few months since I wrote my initial reports, I had
- 13 tried to focus the presentation, despite its apparent
- 14 length, on outstanding matters and some -- I wouldn't
- 15 call them new matters, but perhaps some new
- 16 perspectives of interest.
- 17 So my presentation this morning is
- 18 entitled, 'NFAT Review Macroenvironmental and
- 19 Socioeconomic Considerations'.

20

21 (BRIEF PAUSE)

- 23 MR. RICK HENDRIKS: The outline of my
- 24 presentation this morning, I will speak to my mandate
- 25 briefly. I'll review the definitions of

10346 'macroenvironmental' and 'socioeconomic impacts and benefits' just to refresh our memories. I will briefly speak to some of the inform -- NFAT information that I 3 reviewed that was particularly of relevance, but I will spend the bulk of my presentation dealing with information to assist the PUB. 7 (BRIEF PAUSE) 9 10 MR. RICK HENDRIKS: So my mandate was 11 to review the available evidence concerning the 12 macroenvironmental impact of the PDP and the 13 alternative plans, comment on the determination of the 14 macroenvironmental impact of the hydroelectric 15 resources of the PDP and the alternative plans, speak 16 to the potential for development of additional wind -wind resources in Manitoba as part of an alternative 17 18 plan to the PDP, or as part of an optimized plan to delay a decision to proceed with the PDP, and to identify additional relevant information that would assist the Board. 21 22 23 (BRIEF PAUSE) 24 25 MR. RICK HENDRIKS: Now, what -- what

- 1 may seem like an eternity ago, you provided us with the
- 2 opportunity to present our perspectives on two (2) very
- 3 important considerations in this proceeding, under your
- 4 Order 67/13. You've required Manitoba Hydro and any
- 5 prudent Intervenors intending to submit div --
- 6 intending to submit comments on these matters to submit
- 7 definitions.
- 8 So Manitoba Hydro, the CAC, and the MMF,
- 9 and others submitted definitions. Manitoba Hydro and
- 10 the CAC tended to disagree on a lot of things, and I
- 11 understand that that is a pattern at these hearings.
- 12 So in terms of macroenvironmental
- 13 impact, you're all familiar with this. The collective
- 14 macroenvironmental consequences of changes to air,
- 15 land, water, flora, and fauna, including the potential
- 16 significance of these changes, their equitable
- 17 distribution within and between present and future
- 18 generations.
- 19 In my report, I spoke a little bit to my
- 20 understanding of what this meant for me.
- MR. KURT SIMONSEN: Sorry, Mr.
- 22 Hendriks, can you give a page number for the purpose of
- 23 the transcript?
- 24 MR. RICK HENDRIKS: Oh, yes. Thank
- 25 you. Yeah. I'm on page 9.

10348 In terms of 'collective', I understood 1 this to mean a bringing together of the consequences resulting from all components of the PDP, or of the 3 alternative plans, that maintains their defining features. 6 7 (BRIEF PAUSE) 9 MR. RICK HENDRIKS: In terms of 'consequences', I consider this to mean the potential 10 and likely positive and adverse direct and indirect, 11 12 individual and cumulative, secondary and synergistic 13 effects determined by the probability that they might occur and their uncertainty. So those are two (2) 14 15 important factors mitigating the understanding of -- of the effects. 16 17 In terms of 'significance', I looked at 18 the -- the definition that is commonly used across 19 Canada, which is the definition from the Canadian Environmental Assessment Agency. It speaks to the 21 magnitude of the effects, their geographic extent, 22 duration, and frequency, degree -- degree to which the 23 consequences are reversible or irreversible, and the 24 context in which they occur. 25 I chose this -- there was some debate

- 1 about whether this was the appropriate course of
- 2 action. I chose to do so because this definition is in
- 3 wide use across Canada and it allows comparison across
- 4 time and jurisdictions.
- 5 THE CHAIRPERSON: You're on slide 12,
- 6 Mr. Hendriks, yes?
- 7 MR. RICK HENDRIKS: Sorry. Slide 12,
- 8 yes.
- 9 And comparison across resources and
- 10 plans. The next slide, slide 13. In terms of
- 11 'socioeconomic impacts and benefits', this was defined
- 12 as a high-level summary of potential effects to people
- 13 in Manitoba, especially Northern and Aboriginal
- 14 communities, including such things as employment,
- 15 training, and business opportunities; infrastructure
- 16 and services; personal, family, and community life; and
- 17 resource use.
- 18 And I understood this definition to mean
- 19 that the -- slide 14, that the identified indicators of
- 20 socioeconomic impact are not intended to be exhaustive,
- 21 but others are relevant, especially to Aboriginal
- 22 communities, and that that term 'Aboriginal
- 23 communities' is inclusive of identified Aboriginal
- 24 reserves and residential communities within the
- 25 province, but also the broader Metis and First Nation

- 1 communities.
- Okay, turning to slide 15, in terms of
- 3 the NFAT information. I reviewed the NFAT information,
- 4 and these are some of my key findings.
- 5 Slide 16. The Proponent used a multiple
- 6 accounts benefit-cost approach -- analysis, I should
- 7 say, in which they identified a number of -- of
- 8 accounts. One (1) of those was environment. And the
- 9 focus of that account is not the impacts in themselves,
- 10 but rather the exter -- externality they represent, the
- 11 external net benefit or cost to Manitobans not
- 12 reflected in the market valuation or in other -- other
- 13 accounts.
- 14 I raise the potential that there may be
- 15 somewhat of a conflict between use -- use of cost-
- 16 benefit analysis and a concern that significant
- 17 environmental effects might get overlooked within that
- 18 analysis. So this is a comment from the Canadian
- 19 Environmental Assessment Agency:
- 20 "Although cost-benefit analysis could
- 21 be used to justify proceeding with a
- 22 project that is likely to cause
- 23 significant adverse environmental
- 24 effects, justification can take place
- only after the likelihood of

10351 significant adverse environmental 1 2 effects has been determined." 3 I'm on slide 17. My understanding is that MA-BCA is designed to inform, not to resolve. So it needs to be informed by an understanding of the residual effects of the entirety of the PDP, which would include Conawapa and the transmission 7 infrastructure, including whether or not these residual effects are significant. 10 The question that arises also, in 11 looking at the multiple account benefit-cost analysis 12 more closely, is: What is the amount of this non-13 monetized consequence? Does it change the ranking of 14 alternatives based on the monetized consequences? I 15 believe this is an important consideration for the Board. 16 17 So there are uncertain issues here. Ιn 18 my view, there is uncertain financials because the project will not proceed for several years, and so its financial position could change. And so the monetized 21 consequences could be different in a few years than 22 they are now. 23 And there are also uncertain 24 environmentals, for a number of reasons, the first of 25 which is that we have not undertaken -- excuse me.

- 1 There are potential for cumulative effects related to
- 2 the Conawapa Project. And my understanding is that the
- 3 -- the Proponent has been requested to create a
- 4 framework for cumulative effects assessment and
- 5 monitoring.
- And that framework itself could have
- 7 implications for what the environment will look like in
- 8 the future. And I say that because typically those
- 9 frameworks, they create an objective, if you will.
- 10 What is the environmental quality that we want to have,
- 11 and how do we go about achieving that? So we don't know
- 12 yet whether Conawapa is consistent with what the --
- 13 that objective might be.
- 14 And so in my experience as well, in
- 15 terms of downstream effects on the Peace River as well
- 16 as on the Churchill River, the -- the initial dams
- 17 there were constructed in the 1960s in both cases. We
- 18 are still seeing changes in the downstream rivers.
- 19 This is -- I would have every reason to believe that
- 20 the river, the Nelson River at the Conawapa location,
- 21 is still changing as a result of the other projects.
- 22 And that introduces another element of
- 23 uncertainty. The changes could be in terms of
- 24 sedimentation. They could be in terms of erosion; so
- 25 struc -- structural changes to the environment, which

PUB re NFAT 05-12-2014 10353 would in turn have biophysical changes, which in turn have changes to how the land is used by local land users. 3 So there's a number of uncertainties. And I'll speak to -- to those as I go through the presentation. But those uncertainties lead me to believe that we should proceed very cautiously if we're going to justify a project in tho -- in that kind of a 9 context. 10 11 (BRIEF PAUSE) 12 13 MR. RICH HENDRIKS: Excuse me, Mr. Chairman. There seems to be a difference between this 14 15 -- the presentation that's on here and the one (1) 16 that's on your slides. And I'll just seek to resolve 17 that. 18 MS. JESSICA SAUNDERS: Yes, if we could 19 just stand down. I just noticed the same thing. I just sent a version to Ms. Villegas this morning, and 21 so I will just confirm briefly, if that's okay. 22 23 --- Upon recessing at 9:36 a.m.

25

--- Upon resuming at 9:41 a.m.

- 1 THE CHAIRPERSON: I believe that we're
- 2 ready to resume the proceedings. Mr. Hendriks, please.

- 4 CONTINUED BY MS. JESSICA SAUNDERS:
- 5 MS. JESSICA SAUNDERS: Before Mr.
- 6 Hendriks begins, I just wanted to explain. I provided
- 7 Ms. Villegas with the updated version that you have,
- 8 but I guess I -- I should have provided it to Mr.
- 9 Hendriks as well, just to let him know. I think
- 10 there's was an addition of a -- of a nice picture at
- 11 the end. So we have it all figured out now. Thank
- 12 you.
- MR. RICK HENDRIKS: Thank you, Mr.
- 14 Chairman. As I mentioned, the Proponent has used a
- 15 multiple account benefit-cost analysis. And I noted in
- 16 response to an Information Request of the Proponent
- 17 that a cost-benefit analysis could be appropriate where
- 18 information concerning collective consequences and
- 19 environmental changes, including cumulative effects,
- 20 and the significance of those changes in relation to
- 21 the preferred alternative, has been previously
- 22 determined and were considered in the cost-benefit
- 23 analysis.
- 24 Slide 19. I also reviewed information
- 25 that was provided by the independent expert consultant

10355 to the Board, MNP. And MNP made an observation that: 2 "The net environmental benefits of 3 Manitoba Hydro's Preferred Plan are found to outweigh its overall 5 environmental costs in a regional and 6 global context." And I rai -- and I didn't disagree with that point with respect to greenhouse gases. question that was left for me was whether other plans could perform worse or better on the basis of GH -- GH 10 11 -- excuse me -- worse on the basis of GHGs, but could 12 they perform better in other ways? And so how do we 13 get the full picture, in terms of -- in terms of the 14 comparative analysis between the net benefits between 15 the different plans? 16 Slide 20. So without knowledge of the macroenvironmental impact of the alternative plans with 17 18 respect to the consequences of other, i.e. non-GHG, 19 changes to the environment, it's not possible to determine whether or not an alternative plan performs 21 better overall than the PDP. And therefore, there's a 22 need to provide information respecting some of these 23 consequences. And I looked at hydroelectric projects, 24 as well as wind. Obviously, more time, I would have 25 looked at a lot more things. But this is our

- 1 contribution to this understanding.
- 2 Slide 21. With respect to wind
- 3 resources, I noted in my report that there are several
- 4 development advantages to wind. I won't go into them
- 5 in great detail. I'm sure you've -- you've heard from
- 6 others in this proceeding about what they are.
- 7 But just to summarize, minimized
- 8 transmission losses; wind development in the province
- 9 would be located near to the primary load centre in
- 10 Winnipeg.
- 11 Modularity; you can bring wind -- wind
- 12 resources onto the system in much smaller increments
- 13 than, say, large-scale hydro or -- or large-scale gas.
- 14 There are shorter lead times. I will
- 15 speak a little bit about that and my determinations
- 16 with respect to how quickly wind could be brought onto
- 17 the system. Low operating costs, similar to hydro;
- 18 contracting matters.
- 19 Renewing or decommissioning. One of the
- 20 benefits of -- of wind is that it can be renewed, but
- 21 it also can be decommissioned. And as I pointed out in
- 22 my report, BC Hydro recently took advantage of that
- 23 opportunity and noted that they would not be renewing
- 24 all of their wind projects -- the wind contracts. And,
- 25 of course, it's a form of dependable energy.

- 1 There are some disadvantages, and
- 2 they're not immaterial. Lack of predictability.
- 3 Operation during peak -- peak winter loads is
- 4 problematic here in -- in Manitoba. There's low export
- 5 potential because they would be competing with wind
- 6 resources in other jurisdictions. And it's not
- 7 dependable capacity.
- 8 Slide -- that was slide 22. Now moving
- 9 to slide 23. The multiple account benefit-cost
- 10 analysis compared the PDP to three (3) plans: the All
- 11 Gas Plan, and then a plan without interconnection, and
- 12 a plan with a small interconnection. So Plan 1, Plan
- 13 2, and Plan 4.
- 14 Moving then to slide 24. The analysis
- 15 did not compare the PDP to any of the alternative plans
- 16 containing wind resources, such as Plan 3 or Plan 9.
- 17 Hydro concluded that the two (2) plans with wind
- 18 generation were, to use its words, "clearly
- 19 uneconomic."
- 20 I'm aware that the Board has heard
- 21 differing perspectives on the economic viability of
- 22 wind resources, either as part of a plan or as part of
- 23 a -- of other arrangements, which I'll speak to.
- 24 The first of those is wind as a result
- 25 of unattended delays to hydro. Manitoba Hydro notes --

- 1 I'm on slide 25. Manitoba Hydro notes that it also
- 2 includes wind generation as a resource option in the
- 3 event of significant delays or deferral of large hydro
- 4 if large -- large hydro cannot be built due to
- 5 environmental or regulatory issues.
- 6 Moving to slide 26. Hydro also notes
- 7 that wind can be part of another pathway, supplementing
- 8 the primary forms of generation that are part of that
- 9 pathway. So many other possible plans that could in --
- 10 could occur in each of these -- these five (5) pathways
- 11 resulting, for example, from inclusion of other options
- 12 such as wind generation, et cetera.
- In Hydro's view, it's not expected that
- 14 the inclusion of these other options would
- 15 substantially change the analysis with respect to the -
- 16 the comparative value of the different plans. And I
- 17 won't speak to that. I know that the Board has
- 18 received considerable information from other
- 19 Intervenors and experts in relation to those matters.
- 20 Slide 27. I summarized information from
- 21 other participants to demonstrate overall -- the
- 22 overall state of knowledge respecting cost of wind and
- 23 made a couple of observations. There is evidence of
- 24 declining cost. Use of a generic 65 megawatt facility
- 25 as opposed to optimized resource selection.

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- 1 So inter -- in integrated resource
- 2 planning, typically a resource selection function or a
- 3 system optimizer, if you will, selects projects based
- 4 on their size and their cost and other factors. And
- 5 using a stripped size facility at 65 megawatts may be
- 6 suboptimal. The system might choose a smaller or
- 7 larger project depending on the -- on the need and the
- 8 cost of the project. It can be -- it can be quite
- 9 complex as to how the -- the optimizers ultimately
- 10 chose facilities.
- I noticed that Hydro used a cost
- 12 averaging approach. And again, when a system optimizer
- 13 choses projects, it's going to choose them based on the
- 14 one that's most suitable, so there won't be an
- 15 averaging process. It will choose, in more cases than
- 16 not, the lowest-cost option. But if that facility is
- 17 too large, they might choose a smaller facility that's
- 18 a slightly higher cost. My point being that simply
- 19 averaging the -- the facilities and -- and doing
- 20 analysis on that basis does not really reflect how wind
- 21 would be used in an integrated resource planning
- 22 process.
- The situation was summarized by La Capra
- 24 in their submission when they said that the NFAT
- 25 handicaps technology with expected improvement.

- 1 Slide 28. I made a note in my
- 2 submission that there may be merit in an economic
- 3 delay, what I called the optimized development
- 4 strategy. At that point in time, I was not -- I was
- 5 not aware that La Capra was going to be undertaking
- 6 Plan 17, which I'll speak to. It was an observation
- 7 that I made independently that, looking at the
- 8 situation and being aware of large hydro facilities in
- 9 other jurisdictions, this is something that we often
- 10 look at. It's not no -- it's -- the go/no go decision
- 11 is often a false dilemma. There can be very good merit
- 12 in taking a delay position and saying, Maybe just not
- 13 yet. We might get more value from this resource if we
- 14 waited a little bit longer.
- In part, I -- I made that observation
- 16 due to expected cost declines in wind; my knowledge of
- 17 -- of demand-side management and how that can play a
- 18 powerful role, particularly on the capacity side as
- 19 well as on the energy side, recognizing that I
- 20 understand that energy is the primary -- at least the
- 21 first need here in Manitoba, capacity following about
- 22 three (3) years later; so that wind could play a role
- 23 in -- in part of a plan to avoid the PDP for the
- 24 foreseeable future.
- 25 My estimate was beyond 2030. And I

- 1 notice that La Capra came back with a number of 2029,
- 2 so my guesswork wasn't perhaps too far off. And doing
- 3 so might avoid the adverse environmental impact of the
- 4 PDP for a period of time. And who knows, the situation
- 5 can change in ten (10) or fifteen (15) years. It's a
- 6 very different world than it was ten (10) years ago.
- 7 And I say that particularly because the technologies
- 8 that have changed with respect to natural gas.
- 9 Slide 29. I did not speak to this in my
- 10 report. I'm presenting information on here because it
- 11 arrived following the submission of my report. I refer
- 12 to this as the Economic Delay Plan that was filed by --
- 13 by La Capra in March 2014. And just to refresh your
- 14 memory, it's the use of non-generation resources --
- 15 resources, such as managing demand through sponsorship
- 16 of energy efficiency -- excuse me -- and heating fuel
- 17 switching, and increasing imports through strategic
- 18 transmission expansion to the US can economically delay
- 19 the need for generation investments, whether they be
- 20 natural gas or hydroelectric facilities.
- 21 Slide 30. This is Figure 9-94 from La
- 22 Capra's report. And it illustrates a high level. It's
- 23 a high-level illustration of some of the economic
- 24 advantages of Plan 14. You can see that these are the
- 25 -- the crossover points at twenty (20) years, thirty-

- 1 five (35) years, fifty (50) years, and seventy-eight
- 2 (78) years analyzed by La Capra.
- And you can see that the Plan 14 does
- 4 eventually cross over Plan 17, in terms of present
- 5 value, but it does so quite late in the planning
- 6 period. Much can happen between now and seventy-three
- 7 (73) years from now. And it also has, as an additional
- 8 measure, a fairly robust internal rate of return. And
- 9 so this information, I consider it to be confirming of
- 10 my -- my intuition that there may be some value in this
- 11 type of a plan.
- 12 La Capra also noted in its Appendix 9B
- 13 that Manitoba Hydro's fifteen (15) options also lack a
- 14 set of plans to test the timing of resource additions,
- 15 such as delaying Keeyask five (5) or ten (10) years; or
- 16 addition of natural gas fuel generation or wind
- 17 generation, and then the development of Keeyask or
- 18 Conawapa; or even plans where we can compare if there
- 19 are benefits to adding transmission to a natural gas
- 20 generation plan. And I understand La Capra's point to
- 21 mean that they did Plan 17. But had they had more time
- 22 and resources, they might have been able to optimize
- 23 what the Economic Delay Plan might be.
- 24 While the current Plan 17 does not
- 25 explicitly include resources, an optimized plan,

- 1 depending on the -- on the cost of wind -- wind
- 2 resources going forward, might include wind -- wind
- 3 resources in it.
- 4 Slide 32. However, I caution the Board
- 5 in this regard. Implications of suspending Keeyask are
- 6 numerous, largely as a result of the project being so
- 7 near to construction. What exactly are the socio --
- 8 are the environmental and socioeconomic impacts and
- 9 benefits of Plan 17? We don't yet know.
- 10 La Capra pointed out that there is a
- 11 cost of suspending Keeyask. The window of opportunity
- 12 identi -- identified by the Proponent may close. On
- 13 the other hand, it may open further. Who's to say in
- 14 the future? We don't know exactly. There wouldn't
- 15 need to be alternative to export contracts.
- 16 On the other hand, delaying would allow
- 17 for the completion of the Cumulative Effects Assessment
- 18 and establishment of a framework for the region, which
- 19 would have some value. The environmental impacts and
- 20 benefits of the PDP, or at least Keeyask, would be
- 21 deferred or replaced by those -- Plan 17 for a period
- 22 of time.
- 23 And I wanted to speak to those in some
- 24 detail. I'm moving to -- to slide 33. I took a look
- 25 at the -- the JKDA, in terms of benefits to the local

- 1 First Nations. I noted that Section 12.6.2 of the JKDA
- 2 includes a -- a construction employment target of six
- 3 hundred and thirty (630) person years; and that would,
- 4 of course, be delayed. And depending how long the delay
- 5 is, and if the JKDA was terminate -- terminated, those
- 6 benefits would be lost to the Nations.
- 7 Section 12.7.1 includes an operational
- 8 employment commitment to be met over a twenty (20) year
- 9 period. And of course, if the JKDA is terminated, my
- 10 understanding is that would also be terminated. I was
- 11 unable to locate any survival clause in the agreement
- 12 that would suggest that that would continue.
- 13 It also raises for me a -- a tricky
- 14 question, in terms of the benefit-cost analysis. If
- 15 Hydro and the Nations are successful in terms of the
- 16 long-term operational employment and -- and they
- 17 maintain that agreement, by 2029, they'll have met,
- 18 more or less, that agreement. There will be one
- 19 hundred and eighty-two (182) members working for Hydro.
- 20 Does that mean then that the employment
- 21 advantage of Keeyask is significantly reduced? I think
- 22 it's a question for consideration. So in -- in other
- 23 words, do the -- do the net benefits of construction
- 24 employment, in a sense, erode over time?
- The financial benefits under the JKDA

10365 would be delayed, or the agreement would be terminated in accordance with Article 21. And my understanding from reviewing only one (1), I confess, of the adverse 3 effects agreements, but I suspect the -- the clause would be applied to all of them, would be no longer payable. 7 (BRIEF PAUSE) 9 10 MR. RICK HENDRIKS: I believe the PUB 11 should consider these implications of -- of Keeyask -of a Keeyask delay on the KCNs, especially in the event 12 13 of a lengthy delay or -- or a termination of the JKDA. Moving to slide 34. I did review the 14 15 screening analysis of BC Hydro with respect to wind 16 resources. I'm going to speak to two (2) issues. 17 First, employment and the so-called Aboriginal 18 neutrality, with respect to the development of wind. 19 will get to land use impacts and birds and bats when I summarize the information about the wind projects in Manitoba. 21 22 Table 3-1 in my report summarizes direct 23 employment for designed wind projects in British 24 Columbia. I used that information simply because British Columbia had a lot more projects on the go, and

- 1 they had considered a large number of projects which
- 2 would be comparable to what would be the case here in
- 3 Manitoba in the event of the Wind/Gas Plan, so the most
- 4 extreme version of wind.
- 5 And they determined there were
- 6 equivalent -- I -- I determined that there was an
- 7 equivalent of about two hundred and seventy-five (275)
- 8 person years of the long-term employment. Appendix 7.2
- 9 of the NFAT states directly that direct operations
- 10 employment for a generic 65 megawatt wind facility are
- 11 four (4) to eight (8) full-time person -- positions, or
- 12 about one hundred and eight (108) to two hundred and
- 13 sixteen (216) person years, based on the Wind/Gas Plan.
- 14 So there are -- there's a significant
- 15 difference between the -- the perceptions of the long-
- 16 term employment benefits of wind between the BC Hydro
- 17 analysis and the Integrated Resource Plan, and the
- 18 analysis that was done in -- in the NFAT. I'm not sure
- 19 why the NFAT estimates are lower. They may be due to
- 20 methodological differences, or perhaps there are real
- 21 project differences, although I confess I can't figure
- 22 out what would explain this.
- 23 I could see there being construction
- 24 employment differences, to rain, access, et cetera, but
- 25 once the machines are operating, unless there are --

- 1 are perhaps a fewer number with higher capacity, there
- 2 could be differences, but nonetheless, I believe that
- 3 the estimates that are in the NFAT may be somewhat low
- 4 in terms of operations employment from wind projects.
- 5 I also took a look at the economic
- 6 impact analysis in Section 2.3, just for illustrative
- 7 purposes. Table 1 of the NFAT indicates direct
- 8 provincial employment of eighty-six (86) person years
- 9 for the PDP, and of course, that would be considerably
- 10 less than the two seventy-five (275) that I had
- 11 calculated for wind resources.
- Now, that would be at full scale wind
- 13 resour -- that would be once it's up to 1,755
- 14 megawatts. I also looked at the total employment, so
- 15 direct, indirect, and induced employment, and again, I
- 16 found that operations employment for wind based on the
- 17 BC Hydro numbers would be considerably higher than for
- 18 the PDP, and that -- moving to -- that was slide 36.
- 19 Moving to slide 37, my conclusion is
- 20 that large hydroelectric projects tend to create higher
- 21 levels of construction employment as compared to wind,
- 22 but the alternatives with wind provide higher levels of
- 23 operations employment, and the construction advantage
- 24 of hydro is made up, in a sense, over time.
- I note here also that I did not include

- 1 employment related to natural gas backup, which would
- 2 be required for the wind or some other form of backup.
- 3 I would assume that it would have to be natural gas
- 4 here in the province.
- 5 Now, of course, as has been raised by --
- 6 by Hydro's -- where the benefits take place matters in
- 7 terms of economic rent. Creating employment where it
- 8 is needed is of higher value, and I don't dispute that.
- 9 The value of employment in wind -- wind regions of the
- 10 province was not determined in the NFAT, and it would
- 11 depend on the timing of the project, so it could be
- 12 some time from now before wind projects would come
- 13 online.
- 14 So it would be difficult at this point
- 15 to suggest whether or not the -- the percentages used
- 16 in the multiple accounts benefit cost analysis should
- 17 be 15 percent, as they are for the general population,
- 18 or closer to 50 percent, as they were for the
- 19 Aboriginal population. My sense is it's probably
- 20 somewhere in the middle, that rural unemployment is
- 21 probably somewhat higher in Manitoba than urban
- 22 unemployment, but that's just a guess. We would have
- 23 to look at the numbers at the appropriate time, so.
- I'm on slide number 38, and as a -- the
- 25 -- the issue that I raised earlier about the current

- 1 levels of Aboriginal employment, and the value of the
- 2 project with respect to dealing with the unemployment
- 3 situation, I -- I addressed that more fully in response
- 4 to Manitoba -- in Manitoba Hydro's Information Request
- 5 number 23.
- 6 So to the extent that current levels of
- 7 Aboriginal unemployment are the result of historical
- 8 outcomes of training or hiring of Aboriginal people by
- 9 Manitoba Hydro, the PDP fares better. So to the extent
- 10 that -- that Hydro has hired fewer people in the past,
- 11 the project looks better now, and I found that a bit
- 12 unusual. It seemed to me that that -- that was almost
- 13 counterintuitive.
- 14 Although it's true that you would want
- 15 to create employment to -- to compensate to where there
- 16 might have not been enough opportunity before, I'm just
- 17 not sure whether that should be a benefit to the
- 18 proposed project, whether it should be allocated in
- 19 that way. I don't see -- consider this to be a, you
- 20 know, a deal-breaking issue, but it -- it struck me as
- 21 an inconsistency.
- 22
- 23 (BRIEF PAUSE)
- 24
- MR. RICK HENDRIKS: I'm now on slide

- 1 39. In its response to CA -- Consumers' Associate of -
- 2 Association of Canada request, Hydro looked at the
- 3 Aboriginal interest in wind projects, and concluded
- 4 that employment interest and business opportunity
- 5 interest would either be nill, or they didn't -- they
- 6 didn't estimate it, because they didn't expect that
- 7 there would be any, and the reason given is development
- 8 on private land, and I will speak to the findings of my
- 9 report with respect to wind projects developed on
- 10 private land by Aboriginal groups later in the
- 11 presentation.
- 12 THE CHAIRPERSON: I think there's a
- 13 typo there, just the previous one. I just want to make
- 14 sure that business opportunities -- I'm looking at the
- 15 sub -- sub second bullet --
- 16 MR. RICK HENDRIKS: Oh, there is a
- 17 typo.
- 18 THE CHAIRPERSON: It should be 'wind',
- 19 right?
- MR. RICK HENDRIKS: Yes.
- THE CHAIRPERSON: Both wind and...
- MR. RICK HENDRIKS: Yes, it should be
- 23 'wind' rather than 'with', thank you. I didn't quite
- 24 catch every last one.
- I'm now on slide 40. With respect to

- 1 the Manitoba Metis community, the existing wind farms
- 2 at St. Joseph and St. Leon are in close proximity to
- 3 Metis communities at Carman, Morris, and Ste. Agathe.
- 4 The southern and southwestern regions of Manitoba,
- 5 where wind development is more likely, are also located
- 6 entirely within recognized Metis harvesting zones. The
- 7 Metis would take an interest in these opportunities,
- 8 were they to arise.
- 9 Moving to slide 41, I relied on
- 10 information provided by my client on the location of
- 11 Metis communities within Manitoba.

12

13 (BRIEF PAUSE)

- 15 CONTINUED BY MS. JESSICA SAUNDERS:
- MS. JESSICA SAUNDERS: Sorry, Mr.
- 17 Hendriks, if I could just have you go back to slide 41,
- 18 on the monitor as well?
- 19 MR. RICK HENDRIKS: Yes, we're back on
- 20 slide 41.
- 21 MS. JESSICA SAUNDERS: New information
- 22 that this was -- you indicated that this was
- 23 information you relied on from your client. Could you
- 24 just provide a -- perhaps your understanding of -- of
- 25 what this map is, for the Board?

- 1 MR. RICK HENDRIKS: Yes, I'll do my
- 2 best. My understanding is this is the -- the pink zone
- 3 is a recognized Metis harvesting zones.
- 4 MS. JESSICA SAUNDERS: And just to
- 5 confirm, although we can tell with the Manitoban
- 6 signature there, but this was from the website?
- 7 MR. RICK HENDRIKS: Yes, this is a
- 8 Government of Manitoba map.
- 9 MS. JESSICA SAUNDERS: Thank you.
- 10 THE CHAIRPERSON: Ms. Saunders, could
- 11 you educate me about harvesting zones? Could you two
- 12 (2) let me know what those are -- is?
- 13 MS. JESSICA SAUNDERS: Yes. I can tell
- 14 you, Mr. Chair -- I know Mr. Williams noted this as
- 15 well, giving evidence on the record, but I can advise
- 16 of the information that the client did provide to Mr.
- 17 Hendriks that the -- the zones in the pink area
- 18 indicate those GHA game hunting areas, where -- that --
- 19 that's a designation from, I believe, Manitoba
- 20 Conservation in terms of the various hunting areas, and
- 21 they have a number.
- Those are the GHAs within Manitoba,
- 23 where under the agreement with the Manitoba Metis
- 24 Federation and the government of Manitoba, those areas
- 25 are recognized as areas that the Metis recognized

- 1 through a collaborative process with the Metis that is
- 2 still ongoing that Metis can harvest within that area
- 3 under certain processes and specifications. So the map
- 4 was provided to Mr. Hendriks from the website. Thank
- 5 you.
- 6 MR. RICK HENDRIKS: Thank you, Mr.
- 7 Chairman. So moving on to information to assist the
- 8 PUB, and I'll begin with a discussion of hydroelectric
- 9 information, and then move to a discussion of -- of
- 10 wind information.
- 11 Feel free to -- to stop me, Mr.
- 12 Chairman, if at any time you wish to -- to take a
- 13 break.
- 14 In terms of hydroelectric information, I
- 15 looked to see whether -- what type of information I
- 16 might be able to locate in terms of the prior
- 17 hydroelectric projects on the Nelson River, and I also
- 18 looked at similar hydroelectric complexes on other
- 19 river systems, my belief being that -- that the
- 20 experiences in other jurisdictions and the prior
- 21 experience of Manitoba Hydro would be valuable to the
- 22 Board in understanding the implications of the PDP.
- 23 Slide 44. In terms of the prior
- 24 hyroelect -- hydroelectric projects, there's an
- 25 opportunity to understand the actual environmental

- 1 effects. We don't get to do this very often in my
- 2 practice. As an aside, Canada has done not a very good
- 3 job of monitoring our hydroelectric projects across
- 4 Canada consistently, and as a result, we are left with
- 5 poor quality information in terms of trying to
- 6 understand the effects of -- of new projects, and I
- 7 don't blame anyone in particular for that. It's just a
- 8 reality that we face.
- 9 And so this information is potentially
- 10 valuable to understand the likely macroenvironmental
- 11 impact of the PDP, which of course would be constructed
- 12 in a very similar landscape and located in a similar
- 13 biophysical and socioeconomic context.
- 14 I made an effort to try to come to terms
- 15 with what the prior information was, recognizing that
- 16 my goal was not to -- to repeat the work of the EIS
- 17 done for Keeyask, and recognizing that I had limited
- 18 time.
- 19 What I was looking for was a
- 20 comprehensive summary of residual effects from the
- 21 prior projects. What do we know about the environment
- 22 prior to the project's coming into being? What
- 23 happened, what changed, both scientific perspectives as
- 24 well as local Aboriginal perspectives?
- 25 And I was unable to locate a

- 1 comprehensive set of organized information, and
- 2 biophysical and socioeconomic effects, and as I
- 3 mentioned, it was just simply too -- too time -- time
- 4 consuming to try to compile this information. More
- 5 information can come out of the recommended regional
- 6 cumulative effects assessment, but it will come too
- 7 late for your purposes, so I looked elsewhere.
- 8 Slide 46, and I tried to identify
- 9 similar hydroelectric complexes in other regions, and I
- 10 screened them through a number of criteria, and those
- 11 criteria were -- were fairly carefully developed. I --
- 12 I understood what was being proposed here and what
- 13 existed on the landscape already: Multiple large
- 14 generation facilities on a river diversions built over
- 15 several decades, high voltage transmission facilities,
- 16 new generation diversion and/or transmission facilities
- 17 that had been assessed in the past decade.
- 18 So there was up to date information. A
- 19 lot of these early projects were never assessed, so we
- 20 don't have that assessment information. Existing or
- 21 propo -- proposed generation -- generation facilities
- 22 on the main stem of the river system, and this is
- 23 important, because impacts on -- of a hydroelectric
- 24 complex are quite different if the -- if there is no
- 25 project on the main stem and only on the tributaries,

- 1 but the project's had substantial implications for
- 2 Aboriginal groups. In general, that's true almost
- 3 everywhere across Canada, but I felt it was important
- 4 to include it as a criteria -- a criterion located in
- 5 boreal ecosystems or similar ecosystems, and also
- 6 reviewed by an independent panel.
- 7 And I -- that last one I chose because I
- 8 felt that that was the highest standard of review in
- 9 the -- in the country, and that we would have access to
- 10 the best -- the best minds, if you will, who had
- 11 considered these matters and, that we should, in a
- 12 sense, stand on their shoulders.
- So after the screening process was
- 14 complete, I'm on slide 47, I -- I narrowed the list
- 15 down to three (3), which was quite workable. I was
- 16 worried I might end up with seven (7) or eight (8), but
- 17 it came down to three. La -- the La Grande Complex, in
- 18 particular, the recently developed East -- Eastmain 1-A
- 19 Rupert Diversion, the Churchill River in Labrador, the
- 20 Lower Churchill Project, and Peace River, Site C.
- 21 And luckily for me, these -- two (2) of
- 22 these projects I know quite intimately. I'm not as
- 23 familiar with the La Grande Complex. I'd ask that you
- 24 keep that in mind when you -- should you have any
- 25 questions about the projects. My level of knowledge of

- 1 the La Grande is a little bit less than the other two
- 2 (2).
- 3 Slide 48. So just quite simply, the --
- 4 the project that was being proposed as an addition to
- 5 the complex that already existed on the La Grande
- 6 River, the Eastmain 1-A Powerhouse and Rupert
- 7 Diversion, it was called, so entailed the construction
- 8 of Eastmain 1 Powerhouse and Sarcell powerhouse further
- 9 downstream, as well as the part -- partial diversion of
- 10 the Rupert River into the East 1 -- Eastmain 1-A
- 11 reservoir, which could -- which would then be diverted
- 12 into La Grande Complex via the Eastmain 1 reser --
- 13 Eastmain 1 reservoir.
- 14 So it's a series of -- of diverted
- 15 reservoirs, and proponents tend to do that to make --
- 16 take maximum advantage of the water that they have.
- 17 Rather than building new facilities on a river, they'll
- 18 divert part of the river. And, of course, here in
- 19 Manitoba, you have the exact situation with the
- 20 Churchill River.
- 21 The project was implemented through a --
- 22 a renegotiation, if you will, of -- of the -- of the
- 23 James Bay Northern Quebec Agreement, called the
- 24 agreement concerning a new relationship between le
- 25 gouvernement du Quebec and the Crees du Quebec, in

- 1 English, known as the NRA, and the Boum -- Boumhounan
- 2 Agreement, which is a sub-agreement of the NRA that
- 3 pertained specifically to the project that was signed
- 4 between the Crees, Hydro-Quebec, and Societe d'energie
- 5 de la Baie James
- 6 Slide 50. This renegotiation has some
- 7 implications, I think, for the current situation.
- 8 Historic agreements like the JBNQA can be renegotiate -
- 9 renegotiated as circumstances change. The framework
- 10 for dealings between the Crown and Aboriginal peoples
- 11 is not -- it's not stagnant. It's part of an ongoing
- 12 relationship that can change over time.
- 13 And it's also not uncommon, as I noted
- 14 in my report, for large hydroelectric utilities to
- 15 reconsider their initial plans, as Manitoba Hydro has
- 16 done in relation to Wuskwatim, for example, and to
- 17 Keeyask, as well. There have been number -- a number
- 18 of different configurations over the years, in light,
- 19 of -- of course, of changing circumstances.
- 20 Slide 51. There are some other
- 21 implications that I gleaned from the process, and that
- 22 is the -- the issue of an electricity surplus. There
- 23 are several utilities across Canada that are running
- 24 surpluses. We have surpluses in Quebec. We have
- 25 surpluses in Ontario. We have surpluses in British

- 1 Columbia.
- 2 The Government of Quebec recently
- 3 commissioned a fairly substantial review of this -- of
- 4 the energy system in Quebec, and the -- the surplus
- 5 issue was front and centre. And as a result of
- 6 developing both the project, meaning Eastmain 1-A, the
- 7 Romaine Complex, and wind resources, coupled with a
- 8 decin -- continued decline in load growth in domestic
- 9 and export markets -- I should say decline in the rate
- 10 of load growth might be more correct, although in some
- 11 jurisdictions, the -- the actual load has declined,
- 12 Hydro-Quebec will be running a large surplus.
- So from an environmental perspective and
- 14 socioeconomic impacts perspective, I question the --
- 15 the nece -- the necessity of having undertaken that
- 16 project. We now have all the surpluses being sold at
- 17 costs that would be lower than the cost of generation.
- 18 That raises certain -- certain issues in my mind that I
- 19 think should be considered carefully by the Board.
- 20 We did not have access to the export
- 21 price information, so I cannot say whether -- with
- 22 certainty this is an issue here, but it certainly has
- 23 been the experience elsewhere.
- 24 Other implications, cumulative effects.
- 25 The findings of the panel support the concern that the

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- 1 cumulative environmental effects related to large-scale
- 2 hydroelectric developments cannot be determined without
- 3 a comprehensive research and follow-up program related
- 4 to the existing facilities. It's very difficult to
- 5 predict what the cumulative effects might be if we
- 6 don't know the trends that are already happening in the
- 7 environment. The -- and as you'll see, this is a
- 8 repeating theme throughout my presentation.
- 9 Slide 53. The projects need to stand on
- 10 their own. We heard this again this past Thursday at
- 11 the Site C panel hearing report. There have to be
- 12 clear benefits. The effects can be mitigated only if
- 13 all the necessary conditions are put into effect and
- 14 justifiable only if there are clear benefits. And I
- 15 know that the Board has received information, both from
- 16 -- from Manitoba Hydro as well as from your expert
- 17 consultant, about the benefits of the project. And
- 18 those should be considered carefully.
- 19 In a highly unusual situation, and --
- 20 and I emphasize this for the Board, in my knowledge and
- 21 the knowledge of several practitioners I have spoken
- 22 with, there has never been a dissenting position on an
- 23 -- on an environmental assessment of -- of a panel
- 24 review, ever. And so -- in Canada from -- up to that -
- 25 up to that point in time, so in 2005.

- 1 And so I took this dissenting opinion
- 2 fairly seriously, because not only was it rejecting the
- 3 conclusions that there were no significant
- 4 environmental effects -- which was kind of implied. It
- 5 doesn't say outright in the panel report whether there
- 6 were or there weren't, but it's kind of implied. But
- 7 it was a rejection of the project. So not only did
- 8 this dissenter conclude that there must have been
- 9 something to worry about, but it was so serious that
- 10 the project should not be approved.
- 11 What the dissenting opinion noted was
- 12 that the project's economic profitability must be
- 13 assessed on the basis of the environmental requirements
- 14 before permits are obtained. Otherwise, the project
- 15 would be funded on environmental credit. So in other
- 16 words, if there's so much uncertainty with respect to
- 17 whether or not mitigations will be effective, that must
- 18 be taken into consideration. Otherwise, if we find
- 19 later that they aren't effective, then the critical
- 20 value, if you will, between the different choices is
- 21 altered.
- We need to have confidence in that
- 23 critical value because that's what we're basing our
- 24 decision on. And again, I -- I use that term 'critical
- 25 value'. That goes back to the -- the multiple account

- 1 benefit-cost analysis as the difference between the --
- 2 the preferred project and -- and another project, and
- 3 how that difference could be made up if there are
- 4 differences in the consequences between the projects.
- 5 So the onus is on Manitoba Hydro to
- 6 demonstrate that the macroenvironmental risks have been
- 7 substantially addressed so as not to threaten either
- 8 the economic viability of the PDP or threaten the
- 9 economic advantage that the PDP may have over the
- 10 alternative plans. So we don't want to be in a
- 11 situation where we approve Plan A and we're uncertain
- 12 about what the environmental impacts will be and what
- 13 the costs of those are associated with that, instead of
- 14 Plan B because Plan B appears right now to be more
- 15 expensive. So you -- you can't put those uncertainties
- 16 on the credit card, is what the dissenter is saying
- 17 here, in order to be -- maybe pay them later. We need
- 18 to be sure about what the costs are now.
- 19 Slide 55. The Lower Churchill Project,
- 20 the Churchill Falls Project, a fairly notorious project
- 21 in Canadian history because of its very unfair
- 22 arrangement between Newfoundland Labrador Hydro and
- 23 Hydro-Quebec where power is sold for less than a
- 24 quarter cent per kilowatt hour. It was built in the
- 25 1960s. The Lower Churchill Project has been on the

- 1 books since the mid-1970s. It consists of two (2)
- 2 generation facilities: Gull Island approximately about
- 3 2,250 megawatts, has not yet moved to construction but
- 4 has gone through the process, and on the Churchill
- 5 River downstream of the existing Churchill Falls
- 6 Project; and the Muskrat Falls Generation Project, also
- 7 located on the Churchill River downstream of the Gull
- 8 Island facility. That -- that project is currently
- 9 under construction. And the export transmission
- 10 facilities to the Maritimes are also under
- 11 construction.
- 12 Slide 56. As with the -- the Eastmain
- 13 1-A River Project, Lower Churchill was facilitated --
- 14 facilitated and came into being as a result of an
- 15 agreement between the proponent, the provincial Crown,
- 16 and the local Innu communities, the Innu Nation, who
- 17 were my client in that -- in that project.
- 18 There was the Tshash Petapen, also known
- 19 as the New Dawn Agreement. 'Tshash Petapen' just means
- 20 'new dawn'. It's a direct translation. It had three
- 21 (3) components. And you've heard about this from
- 22 Typlan. I believe they discussed it in their --
- 23 discussed it briefly in their presentation and in their
- 24 submission. That was a land claim agreement in
- 25 principle.

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10384 There was the Upper Churchill Redess --1 Redress Agreement, as well as the Lower Churchill Impact Benefit Agreement. Typlan noted, importantly I 3 might add: 5 "The IBA and the UCRA 6 Churchill Redress Agreement] come into effect immediately upon signing." 9 Slide 57. And I raise this point for the Board, because it illustrates that the Innu were 10 able to renegotiate their prior position on an existing 11 project. And that was not contingent on the new 13 project proceeding. It was contingent on them agreeing 14 to the new project to proceed; so, in a sense, getting 15 out of the way, if you will. But it was not contingent 16 on it proceeding. 17 And what this allowed was the Innu to 18 separate themselves from the uncertainty regarding the 19 new projects so they could receive benefits, compensation benefits, from the prior project, 21 additional benefits, without -- without having to -- to 22 be worried about whether or not the project would 23 proceed. 24 And I think this is an -- an important 25 detail. It's a very subtle detail. But I notice in

- 1 the JKDA in 12.71 there are these operational jobs and
- 2 -- that are not -- that are contingent, it seems to me,
- 3 on -- on the Keeyask project proceeding. I -- I can
- 4 find no -- no indication to the contrary. And -- and
- 5 it raises certain questions for me about the
- 6 willingness to accept the impasse -- impa -- impacts
- 7 and risks on the part of the affected communities.
- 8 One (1) of the -- the issues that --
- 9 that comes to mind here in -- in evaluating the
- 10 environmental impacts is that willingness to accept is
- 11 a key issue in the analysis, the multi -- multiple
- 12 account benefit-cost analysis.
- 13 And I question -- I guess I'm raising a
- 14 question out loud about whether or not the affected
- 15 communities would be less willing if the arrangements
- 16 that had existed -- which both parties, I understand,
- 17 have never been all that satisfied with for the
- 18 existing projects. If those could have been improved,
- 19 would that have changed the willingness or would it
- 20 have altered it in some way?
- 21 Perhaps it could have been done in a
- 22 similar way to what the Tshash Petapen Agreement was,
- 23 where there were improvements on the prior -- well, in
- 24 the Innu case, there was no agreement before, so a new
- 25 agreement. In the case of the -- the JBNQA, there were

- 1 improvements on the prior agreement in accept -- in
- 2 accepting the new project. And I didn't seen evidence
- 3 of that here.
- And I'm not trying to say that this is a
- 5 quote/unquote "best practice." I actually find that
- 6 term a bit dangerous. I think every community faces
- 7 these things differently. What's best for one (1)
- 8 might not be best for the other. But I think this is
- 9 an important consideration about how we evaluate
- 10 willingness. And -- and I put that out there for
- 11 consideration by the Board.
- 12 I was not privy to all of the concerns
- 13 about the prior agreements, but I know some were raised
- 14 and I did read some in some of the reports. So my
- 15 concluding comment on that is: Would they have been
- 16 willing -- would -- would they have been as willing to
- 17 accept the impacts and risks? And would Hydro have
- 18 been able to basically make those zero net cost if
- 19 benefits from the prior projects were improved?
- 20 Slide 58. One (1) of the other things
- 21 that happened during the process for Lower Churchill,
- 22 and which I think has some -- some relevance here, is
- 23 that the variant changed. Now, the variant is just a
- 24 term used by engineers to describe -- when they do
- 25 their alternatives analyses, they'll come up with a

- 1 number of different ways that they might build the
- 2 project.
- 3 So if there's one (1) project, they
- 4 might put the spillway on one (1) side or on the other
- 5 side. They might -- and the dam might be a slightly
- 6 different height. It might be a different location on
- 7 the river. If there's more than one (1) project, then
- 8 they might -- might also look at sequencing variances.
- 9 So which project should they build first, second, et
- 10 cetera?
- 11 So the variant change for the Lower
- 12 Churchill, pretty much at the very last minute in the
- 13 EA process, the preferred variant was to build Gull
- 14 Island first, followed by Muskrat Falls. And then it
- 15 switched. So circumstances can change.
- 16 And it raised, for me, a recommendation
- 17 to the Board which I included in my report that you
- 18 clearly indicate your understanding of the pr --
- 19 description of the PDP or alternative plan that is
- 20 being recommended and that you indicate any changes to
- 21 that -- that -- to the PDP or the plan that's being
- 22 recommended that would be inconsistent with the
- 23 findings of the PUB with respect to the associated
- 24 macroenvironmental impact. Example, changes that would
- 25 make the PDP or recommended plan acceptable or

- 1 unacceptable based on macroenvironmental impacts.
- 2 So something that, in a sense, would
- 3 change that critical value, that difference between the
- 4 two (2) plans. So, for example, what -- what might
- 5 that be? It could be a change in the transmission
- 6 infrastructure, or it could be a change in the height
- 7 of the dam facility. It could be a change in the
- 8 sequencing. Right now it looks like Keeyask is going
- 9 to go. Circumstances can change. So I -- I'm
- 10 recommending the Board carefully outline what it is
- 11 that you -- you are recommending.
- 12 Other implications, the -- slide number
- 13 60. The Environmental Assessment Panel recommended the
- 14 use of integrated resource planning process for future
- 15 decisions regarding energy resources in Newfoundland
- 16 and Labrador. It's my view that that's material to
- 17 ensuring that DSM is properly considered as a resource
- 18 option; that the macroenvironmental impact of DSM is
- 19 also properly evaluated, particularly the benefits, the
- 20 macroenvironmental benefits of DSM. The advantage of
- 21 IRP is that -- it optim -- optimally selects resources.
- The decision not to include DSM as a
- 23 resource option is to implicitly accept greater
- 24 macroenvironmental impact from the outset, and great
- 25 macroenviron -- macroenvironmental impact than is

- 1 necessary. It's very difficult, in my experience, to
- 2 try to mimic the -- the algorithms of a sophisticated
- 3 system optimizer. And I have not reviewed in detail
- 4 how Manitoba Hydro has gone about this process of
- 5 trying to select resources, I confess. But I am
- 6 concerned that -- about this issue. And I know others
- 7 have raised this concern as well in this proceeding.
- 8 Slide 61. Again, the panel there found
- 9 that the large-scale hydroelectric projects being
- 10 proposed were associated with several significant
- 11 environmental effects in relation to fish and
- 12 terrestrial habitat, and -- and caribou, et cetera.
- 13 Slide 62. Again, they raised the same
- 14 issues as -- as the Eastmain 1-A panel. The cumulative
- 15 effects of interaction between existing and proposed
- 16 projects are poorly understood and contribute to
- 17 uncertainties regarding consequences of changes and the
- 18 potential significance of changes.
- 19 Slide 63. I noted some comments from
- 20 Intervenors and -- and others in this proceeding that
- 21 if there are already several hydroelectric projects on
- 22 the river, why not just build another one? My
- 23 experience has been actually the opposite, that the
- 24 remaining portions of the river tend to be more high --
- 25 highly valued by the affected communities. Now, that

- 1 might be different here in Manitoba, I'm not sure. But
- 2 certainly that was the case in the Lower Churchill and
- 3 was also the case at Site C. And the theory there
- 4 being that as something becomes more rare, it becomes
- 5 more valued.
- 6 Slide 64. The Bennett Dam was --
- 7 actually came into operation in the early 1970s, but
- 8 the concept was developed in the 1950s. Sorry, the dam
- 9 was completed in 1968, but the reservoir filling took,
- 10 actually, three (3) years. The reservoir behind the
- 11 dam is -- is quite large. And then a second dam was
- 12 constructed in 1980. The proposed Site C generating
- 13 station is located approximately 83 kilometres
- 14 downstream from the existing Peace Canyon Dam on the
- 15 Peace River.
- 16 There are historical agreements in
- 17 place. I won't get into detail with -- about what they
- 18 are, but they -- they deal with the communities that
- 19 had to be relocated because of the size of the
- 20 reservoir. In that case there were commun -- First
- 21 Nation communities that were relocated, and I believe
- 22 also non-First Nation -- or non-Aboriginal communities
- 23 as well. However, there are no agreements with
- 24 communities surrounding the reservoir who didn't have
- 25 to be relocated. In fact, those issues are still being

- 1 resolved.
- BC Hydro, slide 66, has made public its
- 3 proposed approach to negotiation. The approach has not
- 4 been accepted by the First Nations. It hasn't been
- 5 rejected either. Many of the First Nations are not
- 6 interested in negotiating with Hydro on the project.
- 7 But their proposed approach, in terms of participation,
- 8 includes cash payments, lump sum payments, and streams
- 9 over time.
- They are not proposing an equity
- 11 arrangement. They have not made that available as an
- 12 option. They're willing to support education,
- 13 training, and community infrastructure, considering --
- 14 they also considered land compensation, so for lands
- 15 that have been lost through Crown land transfers, and
- 16 also implementation of land protection mechanisms or
- 17 special land management designations to compensate for
- 18 lost lands.
- 19 Slide 67. Again, in this case, the
- 20 proponent itself predicted a number of significant
- 21 adverse environmental effects associated with the
- 22 project. In the panel report that recently came out
- 23 last Thursday, the panel expanded on that list.
- 24 So again, this confirms the -- the
- 25 concern that large hydroelectric projects can be

- 1 associated with many significant effects, including
- 2 cumulative effects. And again, the -- the same issue
- 3 that we saw with the other projects that I mentioned
- 4 earlier, with respect to cumulative effects and -- and
- 5 issues of uncertainty.
- 6 Slide 69. One (1) of the things that
- 7 often happens in order to get a project approved is
- 8 that a proponent will not consider the effects of the
- 9 prior projects in their assessment. They will assume
- 10 that they are incorporated into the baseline. What
- 11 this has -- the -- or what it does -- it's not -- I was
- 12 going to say it has a tendency to do. But what it --
- 13 what it does is it creates in incremental effect.
- 14 Essentially, you say that those effects didn't really
- 15 matter, the ones that happened.
- 16 Now, in my experience from an Aboriginal
- 17 community perspective, imagine that you have a pie of
- 18 land that you use. And so a couple of slices are taken
- 19 out. And the proponent says, Well, you still have 100
- 20 percent left because we're starting with 100 percent
- 21 again when we take our new slice out.
- This is an issue that is quite
- 23 controversial and is the reason why many First Nations
- 24 across Canada have been very -- expressing a lot of
- 25 frustration about that kind of a process, in terms of

- 1 the implications for their land use and rights.
- 2 And also, from a cumulative effects
- 3 perspective, it pretends that there weren't any effects
- 4 and there aren't any changes in the landscape that are
- 5 still ongoing as a result of those prior projects,
- 6 which is not consistent with the facts. It also
- 7 implies that those prior effects were, to a certain
- 8 extent, acceptable. And the reality is that we would
- 9 not approve some of these prior projects under today's
- 10 regulatory regimes.
- 11 Slide 70. So viewing these additional
- 12 impacts in the context of larger impacts that occurred
- 13 historically is not appropriate, in my view. If we did
- 14 something really environmentally damaging in the past,
- 15 it's not enough just to say, Well, we're doing better
- 16 now. We have -- the projects have to be measured on
- 17 their own merit.
- 18 And how future generations view the
- 19 choices we make today may be very different than the
- 20 way we see them ourselves. And I say this in both
- 21 directions. I'm not just saying this -- I mean, in
- 22 report I think I implied that I was being critical;
- 23 that we might, you know, look back and say that, Oh, we
- 24 shouldn't have built this dam. Or we may look back and
- 25 say, In light of climate change, we could have done

10394 So it is very difficult to predict. And I -- I don't envy the position of the Board, in terms of trying to make sense of these issues. 3 THE CHAIRPERSON: I think it would be 4 an appropriate time to take a break now. We've been at it for about an hour and a half. So I suggest we take a ten (10) minute break and resume the proceedings after that. 9 10 --- Upon recessing at 10:32 a.m. 11 --- Upon resuming at 10:47 a.m. 12 THE CHAIRPERSON: I believe that we're 13 14 ready to resume the proceedings. I'll turn the 15 microphone over to Mr. Hendriks, please. 16 MR. RICK HENDRIKS: Thank you, Mr. 17 Chairman. Just to confirm with the transcriber, we're 18 on slide 71. And I will endeavour to speak a little 19 bit slower to improve the transcription. 20 Information to assist the PUB with 21 respect to wind. In regards to wind energy, I looked 22 at the existing wind resources in Manitoba, the two (2) 23 facilities that are -- that are operating here in the 24 province, as well as wind -- wind resources in other

jurisdictions, to get some sense of what significant

- 1 expansion of the wind industry in the province might
- 2 look like.
- 3 Slide 73. With respect to the existing
- 4 wind resources in Manitoba, I wanted to obtain
- 5 information not only about what effects were predicted,
- 6 but what the actual effects have been since -- since
- 7 the projects came into operation. And I thought that
- 8 would be valuable to understand the likely
- 9 environmental -- macroenvironmental impact of more
- 10 wind, which, of course, would be constructed in a
- 11 similar landscape in South and Southwest Manitoba.
- 12 Slide 74. As you all know, there are
- 13 two (2) facilities in the province: one (1) at St.
- 14 Joseph's and one (1) at St. Leon. Total installed
- 15 capacity of 237 megawatts. They are both Ecologo
- 16 certified and Green-e certifiable. And they qualify as
- 17 renewable energy in Minnesota. But Manitoba Hydro does
- 18 not realize any Class 1 renewable energy credit value.
- 19 That information is taken from the NFAT.
- 20 Slide 75. I looked particularly at the
- 21 St. Joseph's wind energy project. I was not able to
- 22 find as much information about St. Leon. The facility
- 23 has sixty (60) turbines, 138 megawatts, distributed
- 24 over an area of 215 square kilometres, primarily in
- 25 agricultural land. There's a twenty-seven (27) year

- 1 power purchase agreement between Manitoba Hydro and
- 2 Pattern Energy. And development took place over a six
- 3 (6) year period beginning in 2005.
- 4 Slide 76. In terms of this development
- 5 schedule, the six (6) year development schedule for St.
- 6 Joseph, it's my view, based on the information that
- 7 I've put together for this submission, that that would
- 8 be longer than would likely be the case for future
- 9 projects, particularly if community engagement and --
- 10 and potential baseline studies were initiated fairly
- 11 early in the process and that the time to operation
- 12 could be shortened. I will speak to that a little bit
- 13 later in -- in the context of the many other wind
- 14 projects that I considered in the submission.
- With respect to the St. Joseph's wind
- 16 facility, I -- I was able to -- to obtain environmental
- 17 effects monitoring information with respect to birds
- 18 and bats. Those are the only two (2) species for which
- 19 there was post-project monitoring.
- 20 And I also had the predictions of the --
- 21 of the regulatory process. And there were no predicted
- 22 significant adverse residual environmental effects for
- 23 any environmental valued components. And follow-up
- 24 monitoring to date confirms this prediction. To the
- 25 best of my knowledge, that follow -- follow-up

- 1 monitoring is now complete and the reports have been
- 2 filed. And no further monitoring of birds and bats is
- 3 anticipated.
- 4 Slide 78. As is acknowledged in the
- 5 NFAT agriculture could continue unaffected below the
- 6 transmission lines or near the wind turbines, other
- 7 than the immediate infra -- infrastructure footprint
- 8 area. So that just means the concrete pad on which the
- 9 -- the turbine would be constructed. The criterion
- 10 used in the -- in the analysis in the NFAT does not
- 11 consider the potential for remediating the affected
- 12 area following the end of the useful service of the
- 13 particular resource option.
- 14 Historically, we have been having
- 15 electricity load growth every decade. Now, the rate of
- 16 that growth, as has been reported in other locations in
- 17 -- during the NFAT proceedings, has slowed
- 18 considerably. In some jurisdictions, we now have --
- 19 where I live, for example, in Ontario, we have been in
- 20 negative load growth for several years. We are well
- 21 below our peak load of 2008. And that is not
- 22 anticipated to change any time soon.
- 23 So one (1) of the advantages of wind
- 24 projects is that they can be put up and they can be
- 25 taken down if they're no longer needed. And as I

- 1 indicated in my report, BC Hydro is setting the stage
- 2 to do exactly that in the event they need to. They are
- 3 choosing not to confirm that they will renew every
- 4 independent power project in the future.
- 5 So the flexibility issue is becoming
- 6 more important as we move to situations where load
- 7 growths are very small or, in fact, negative. And this
- 8 allows for -- for resource flexibility for ratepayers.
- 9 Slide 79. I considered these land
- 10 impacts. If we expanded to 1,755 megawatts, which
- 11 would be the maximum amount under the Wind/Gas Plan,
- 12 we'd be looking at a fairly large area of -- of
- 13 development of wind turbines, about 1,600 square
- 14 kilometres. Now, obviously that wouldn't be one (1)
- 15 chunk. It would be spread out. And so the existing
- 16 facility, St. Joseph's, is 138 megawatts over 215
- 17 square kilometres.
- So I did some extrapolation of the two
- 19 (2) projects that are there and -- and came up with
- 20 that number. These land impacts are less than in some
- 21 other regions. So, for example, if you were to go to
- 22 Quebec, or go to Iowa, or Minnesota -- Southern
- 23 Minnesota, Southern Iowa, you would see very high
- 24 density of wind turbines there. But still nonetheless,
- 25 this is a fairly -- fairly large undertaking that --

- 1 that would be required for the maximum amount of wind
- 2 contemplated under that plan.
- In terms of other land incap -- impacts,
- 4 the collective landscape and visual impact is a
- 5 consideration on -- on many projects and would require
- 6 planning management and social licence. Not every
- 7 community will want a wind project -- that has
- 8 certainly been the experience where I live in Ontario -
- 9 but many will. There need to be willing community
- 10 hosts. There needs to be appropriate land use planning
- 11 in advance; opportunities for community benefits, and I
- 12 will speak to those, how those have been realized in
- 13 many projects throughout the country; and management
- 14 and monitoring committee. That has become standard now
- 15 in Quebec and is also -- also pretty much the norm now
- 16 in Ontario. So that's a joint committee between
- 17 affected -- the affected community and the operator and
- 18 the regulator.
- 19 Slide 81. Just some specifics on the
- 20 birds. The mortality rates for the two (2) years of
- 21 monitoring represented a low impact on the avian
- 22 populations, well below federal thresholds established
- 23 by Environment Canada. And it's anticipated that would
- 24 continue to remain consistently low throughout the life
- 25 of the project. The writers of the report didn't

- 1 foresee anything that -- at this point that would
- 2 change that.
- 3 Slide 82. In terms of bats, again, the
- 4 first year represented a low -- a low mortality rate,
- 5 and the second year represented a moderate -- moderate
- 6 mortality rate. And they noted that the proximity of
- 7 development close to the Red River -- and I would
- 8 assume that might apply to other water bodies in the
- 9 territory --, may have an upward -- upward influence on
- 10 the mortality of bats in the area.
- 11 Slide 83. The purpose of cumulative
- 12 effects frameworks -- or, if you want, regional or
- 13 strategic environmental assessment, as it's sometimes
- 14 called -- is to establish what the outcome is. Where
- 15 do you want to be in the future, and then work
- 16 backwards from there. And so if you want to have 1,755
- 17 more megawatts of wind in the territory, what does
- 18 approximately 2,000 megawatts of wind look like, and
- 19 how can it be optimally developed? There could be a
- 20 cumulative effect. And so developing a kind of
- 21 framework to try to manage the change, in my view, is a
- 22 valuable step.
- 23 Also, there is a lot of data held at
- 24 Natural Resources Canada about birds and bats. It has
- 25 -- one has to go get it. They don't make it available

- 1 easily. But again, the information is there to do this
- 2 right. It is possible to minimize the potential for
- 3 macroenvironmental and socioeconomic impacts related to
- 4 more intensive wind development, but it will take a bit
- 5 of planning.
- 6 Slide 84. So this was the socioeconomic
- 7 benefits associated with the St. Joseph's Wind Project
- 8 based on the information I was able to obtain. So
- 9 there -- there were two hundred and fifty (250)
- 10 directly affected landowners. They were compensated.
- 11 Also those along the transmission line
- 12 were also compensated, which is good practice, and
- 13 apparently the law here in Manitoba. It's not the law
- 14 everywhere, but it is the law here in Manitoba that
- 15 those along the transmission lines are compensated in
- 16 accordance with Manitoba Hydro policy. Annual grants
- 17 to the local museum of twenty thousand dollars
- 18 (\$20,000), and priority hiring of local residents.
- 19 I commented in my report that I didn't
- 20 think that would cut it for current wind projects, and
- 21 I say that because the -- as you'll see, the agreements
- 22 that are now being arranged with other communities are
- 23 much more lucrative than this. And it wouldn't take
- 24 much for a local Manitoban to figure that out and ask
- 25 questions about why the agreements that may be offered

- 1 here aren't improved in the future.
- 2 Slide 85. Generally, there's an
- 3 expectation now that there will be an opportunity to
- 4 own the energy resource on the part of local
- 5 communities, either through a cooperative or some form
- 6 of ownership share in the company. It allows those
- 7 whose lands might not be suitable for wind turbines but
- 8 who experience some impacts to benefit. It might
- 9 include the -- the municipality, potentially affected
- 10 Aboriginal groups, et cetera.
- 11 It may bring on side those who might
- 12 otherwise oppose a project. And I make that claim
- 13 based on my experience with impact benefit agreements
- 14 on other types of resources; so hydro, as well as
- 15 mining. The ben -- the benefits do matter, in terms of
- 16 the willingness. I don't -- I don't disagree with that
- 17 on that point.
- 18 Employment. There was creation of two
- 19 hundred (200) to three hundred (300) direct jobs during
- 20 construction, and fifteen (15) direct jobs during
- 21 operations. Local populations, including the local
- 22 First Nation, were given priority in employment and
- 23 training. The direct -- if I were to extrapolate those
- 24 direct jobs to 1,755 megawatts, those direct operating
- 25 jobs, sorry, to 1,755 megawatts, which is the plan --

- 1 Plan 3, I'd suggest a hundred and ninety (190)
- 2 operating jobs.
- 3 And that's reasonably consistent with
- 4 the findings of operations employment projected in
- 5 British Columbia. I had -- two seventy-five (275) was
- 6 my other number, so we're in the same ballpark. And
- 7 again, it's the long-term employment from these
- 8 projects that -- that really is beneficial in that
- 9 particular account, of the multiple account cost-
- 10 benefit analysis.
- 11 Slide 87. I'm wondering -- I'm just
- 12 making a note here, it might be useful to -- I'm
- 13 looking to have a -- a document put up in the next few
- 14 slides. It's a response to MH/MMF number I-25b. It's
- 15 a table of wind projects and a summary table at the
- 16 end. I'm just giving you an advance on that.
- 17 So I looked at wind resources in other
- 18 jurisdictions, in particular, British Columbia,
- 19 Ontario, Quebec, and Newfoundland and Labrador. Now,
- 20 Newfoundland -- Newfoundland and Labrador, there are
- 21 only two (2) projects, so I really focussed on the
- 22 other three (3) jurisdictions.
- I looked at the observations,
- 24 conclusions, and recommendations of regulatory
- 25 decisions. I was able to obtain the environmental

- 1 decision statements for just about all of the projects,
- 2 and I've reviewed the summaries. Clearly, reviewing
- 3 them all was not possible in the time frame that I had
- 4 available, but I was able to get a pretty good sense of
- 5 the projects and -- and what their implications were on
- 6 the landscape and on the communities.
- 7 And those were the same jurisdictions
- 8 that I considered for the hydroelectric resources.
- 9 Other than -- yeah, sorry, in terms of Ontario, it was
- 10 added in response to an Information Request from Hydro.
- 11 It was not considered in my initial submission.
- So again, I -- I, you know, I -- I try
- 13 to get into some details between the projects, but I
- 14 was looking for sort of the high-level implications of
- 15 -- of the development in other jurisdictions. That was
- 16 slide 88.
- Moving now to slide 89. In terms of
- 18 technical matters, I found that the average period from
- 19 the request for proposals -- so all of these
- 20 jurisdictions are, in a sense, farming out, no pun
- 21 intended, wind farm development to the private sector,
- 22 and so they issue an RFP and say, you know, We're
- 23 looking for so many megawatts of wind over a certain
- 24 time period, and everybody comes forward and puts in
- 25 their development proposals and some are accepted, some

- 1 are rejected, some are put on hold, and eventually you
- 2 get to the commercial operation date. So there was an
- 3 average of four (4) years, which is pretty quick,
- 4 quicker than I would have guessed, actually.
- Now, my sense is that this is occurring
- 6 because those proponents are getting themselves ready
- 7 in anticipation of the RFP. So they're building
- 8 community support, they're doing their wind resource
- 9 assessments, they are doing any studies of wildlife or
- 10 -- or other things that they need to do. So that --
- 11 that's enabled them to -- to hasten the timeframe, if
- 12 you will.
- I noticed that the project sizes seem to
- 14 be getting bigger, up to an average of 150 megawatts,
- 15 which is somewhat higher than the 65 megawatts used in
- 16 the analysis by Hydro. It could have some implications
- 17 in terms of economies of scale.
- Decommissioning plans, this fits in with
- 19 what I said earlier, that -- that these resources are -
- 20 are not being built because they're assumed to be
- 21 permanent. They're being built to beet -- meet the
- 22 need that is there now, and if they're not longer
- 23 needed later, then they'll be taken down.
- They are required in Quebec,
- 25 decommissioning plans, and also required in Manitoba.

- 1 Although, I -- I got the sense that that requirement
- 2 was not being enforced. I'm not really sure why that
- 3 would be the case, but -- and in Ontario as well.
- 4 There is consideration being given to requiring
- 5 decommissioning plans, although most proponents now
- 6 treat it as sort of standard practice and -- and best
- 7 practice to -- to do so.
- 8 Slide 90. Now, this is -- this comment
- 9 is based only on the -- the Environmental Assessment
- 10 decisions I've reviewed for the report. I did not
- 11 review this particular issue for the Environmental
- 12 Assessment decisions for the projects that I added when
- 13 I answered the Information Request.
- 14 So -- but of the twenty-five (25) that
- 15 I've reviewed for the report, none require the
- 16 justification of any significant residual adverse
- 17 environmental effects, including cumulative effects, in
- 18 order to approve the project.
- 19 Post-construction monitoring was
- 20 required for birds and bats in almost every instance.
- 21 A couple times, it was required for other species, and
- 22 the uncertainty about the potential effects on those
- 23 monitored species was acknowledged on several
- 24 occasions. I am not aware that there has been a
- 25 revision in terms of the predicted effects of any wind

- 1 project in -- in Canada -- or in the jurisdictions that
- 2 I looked at, I should say, in -- on the list that I --
- 3 that I compiled. And so monitoring has not changed the
- 4 -- the views of the predictions that occurred during
- 5 the environmental assessment.
- 6 Slide 91. At this point, if we could
- 7 put up MH/MMF I-25b? Now, do I control that, or how
- 8 does that work? Okay. Okay, I'm going to ask that you
- 9 just scroll down, please. Okay. Can we just go up a
- 10 little bit? So in response to the Information Request
- 11 from Hydro, and to assist the Board, I tested Table 4.1
- 12 and Table 4.1a.
- Now initially, you may have some
- 14 questions about this. In Table 4.1 -- before I get
- 15 there -- so I looked at wind projects in Ontario, and I
- 16 adjusted the -- the capacity threshold. So I looked at
- 17 projects in all the jurisdictions above 20 megawatts.
- Due to the large number of smaller wind
- 19 projects, particularly in Ontario, so below 20
- 20 megawatts, and the lack of readily available
- 21 information concerning those projects, particularly on
- 22 the internet, which is where I did most of the search,
- 23 I excluded them from the table. However, there are
- 24 smaller projects in Ontario that have Aboriginal
- 25 ownership or community ownership, and many more in the

- 1 planning stages, and I just provided a couple
- 2 references there just to illustrate the -- the level of
- 3 engagement that's now occurring at the community and
- 4 Aboriginal level and wind development.
- 5 Can you scroll down, please? Okay, so
- 6 for all five (5) projects -- or all provinces, excuse
- 7 me, wind projects are included that have received a
- 8 power purchase agreement -- I was not interested in --
- 9 in speculative projects -- with a provincial utility or
- 10 authority, so there's the list of the authorities, and
- 11 that have entered or completed the regulatory process.
- 12 So they have a PPA. They're in the process. Pretty
- 13 good chance they're going to -- going to go ahead.
- 14 So the version of 4.1 in my initial
- 15 submission only included those wind projects that had
- 16 completed the regulatory process, and for which I could
- 17 locate an environmental assessment decision statement.
- 18 So I really expanded the list here, because I felt it
- 19 was important to give a proper picture fo the Board.
- The status column indicates whether a
- 21 proj -- a wind project has received a power purchase
- 22 agreement and has entered the regulatory process --
- 23 regulatory, has received a power purchase agreement and
- 24 regulatory approval, construction, or is as -- or is in
- 25 operation as of the date indicated.

- 1 So if we can scroll down a little bit
- 2 further? So to assist the panel in interpreting the
- 3 information, I included a second table. When I
- 4 originally prepared Table 4.1, I -- I circulated it to
- 5 a colleague, and his comment was, You're going to need
- 6 to call your lawyer. I had originally included all of
- 7 the financial information, which is public, in a list
- 8 beside each of the projects, and the feeling was among
- 9 colleagues that that was too much information to be
- 10 available on one (1) location out in the public domain.
- 11 And so what I did, I created this
- 12 summary table, which, in my view, gives the -- an
- 13 indication to the Board about what the magnitude of the
- 14 -- the benefits are from these projects.
- So Aboriginal involvement indicates
- 16 those projects for which information has been located
- 17 to confirm that an Aboriginal group holds an equity
- 18 share, or receives revenues or other benefits from a
- 19 proposed or operating wind project.
- 20 I should explain here that I -- that I
- 21 expanded on what I was asked to provide, and I feel I
- 22 should justify why I did that. Hydro asked me to
- 23 provide only those cases where equity was provided --
- 24 or where there was actual equity on the part of the
- 25 Aboriginal group, and in my experience, Aboriginal

- 1 groups are offered equity, but for their own reasons,
- 2 sometimes don't choose it. And I felt that it was
- 3 important to include the revenue in places where
- 4 they're receiving revenue as well, because just because
- 5 a -- an Aboriginal group chooses not to have equity, I
- 6 didn't think that was relevant to the consideration of
- 7 whether or not they might benefit, so I -- I did
- 8 separate out, though, the equity and -- and the revenue
- 9 benefits.
- 10 So ninety-two (92) of the identified
- 11 wind projects larger than 20 megawatts, at least seven
- 12 (7) have some Aboriginal ownership, ranging from 10
- 13 percent to a hundred percent. So in my initial table,
- 14 I had listed the ownership percentages as well. I
- 15 thought that maybe that was a bit too sensitive. And
- 16 at least nine (9) others have revenue sharing and
- 17 benefits agreements.
- I view these numbers as conservative,
- 19 because I know that there other negotiations going on
- 20 that aren't public and there will be future
- 21 negotiations on some projects. And almost all of this
- 22 involvement has occurred in relation to projects that
- 23 have come online in the last three (3) years.
- In my experience, part of the reason for
- 25 this is that there's greater engagement now by

- 1 Aboriginal groups across the country; that's reason
- 2 number 1. Reason number 2 is that Aboriginal groups
- 3 have gained a lot of experience as a result of
- 4 participation in development of small scale hydro
- 5 projects.
- 6 So small scale hydro projects used to be
- 7 what we'd say at the margin. So they used to be the
- 8 projects that would bid in to power calls, and they
- 9 would be the ones that would be successful. Well, now
- 10 wind projects are at the margin, so they are the
- 11 preferred resource in most -- most places outside of,
- 12 for example, British Columbia, Ontario, Quebec, et
- 13 cetera. So the small hydro has kind of taken a back
- 14 seat.
- In terms of -- in terms of community
- 16 involvement, it pretty much means the same thing as
- 17 Aboriginal involvement, just the numbers are different.
- 18 I provided the information on community involvement for
- 19 context, so to get a sense of, you know, are Aboriginal
- 20 communities getting -- having more involvement than
- 21 locally affected non-Aboriginal communities, or is it
- 22 less? You know, how does it compare? Are they getting
- 23 more money? Are they getting less?
- I felt that that was important to -- to
- 25 give a sense to the Board, because you're also looking

- 1 at the benefits to Manitobans, and that was part of our
- 2 -- our mandate on this file. And I'm speaking too
- 3 quickly, and I will slow down.
- 4 So these numbers also should be viewed
- 5 as conservative. I don't know, you know, there could
- 6 be other negotiations going on that I'm not aware of,
- 7 or that I was not able to find information about, and
- 8 others that may still be nego -- be announced.
- 9 So as a general statement, the financial
- 10 benefits on average, where revenue agreements are in
- 11 place with Aboriginal groups and/or local communities -
- 12 in some cases it was both -- and where specific
- 13 monetary information could be obtained, the revenues
- 14 received over a twenty (20) year contract period on the
- 15 -- are on the order of fifty thousand dollars (\$50,000)
- 16 per inst -- per megawatt. So that is twenty-five
- 17 hundred dollars (\$2,500) per megawatt per year.
- 18 So if we can scroll down to the table?
- 19 So I'll just give you a sense. So the project's -- the
- 20 PR stands for province. So those are the projects in
- 21 British Columbia and then Manitoba. Those are the two
- 22 (2) projects in Manitoba, Newfoundland, Ontario, et
- 23 cetera. A lot of projects in Ontario, and then Quebec.
- And just to give you a sense, some are
- 25 $\,$ still in -- in, you know, the regulatory process. Some

10413 are in construction. Some have been operating for more than ten (10) years now. 3 Okay. Let's look at the summary table. 5 (BRIEF PAUSE) 6 MR. RICK HENDRIKS: So in terms of 7 Aboriginal involvement, there are seven (7) Aboriginal equity projects. As I said, the range of equity is from 10 percent to 100 percent. Aboriginal revenue 10 projects, there are nine (9) altogether. Of these 11 12 sixteen (16) projects, two (2) are located on private 13 lands, so there are instances where Aboriginal groups 14 have been able to participate in ownership or revenue 15 on development of wind projects on private lands. 16 And the revenue per megawatt, now this 17 was only for those agreements where the revenue was 18 stated. So I - I knew I -- I could obtain the 19 existence of agreement in some instances, but not obtain the monetary value within that agreement. So 21 these are only for the -- those for which I was able --22 able to obtain the monetary information. 23 So you can see there's quite a 24 disparity, but on average for Aboriginals, it -- that's a weighted average, is thirty-six thousand (36,000),

- 1 and for non-Aboriginal communities, it is fifty-six
- 2 thousand (56,000). So in the case of the Aboriginal
- 3 communities, if my recollection is correct, this will
- 4 be subject to check, only one (1) in BC and one (1) in
- 5 Ontario was I able to obtain the revenue. So we're
- 6 dealing with a pretty small sample size for the
- 7 Aboriginal revenue.
- 8 In terms of the Aboriginal equity
- 9 projects, I could not obtain any information on the
- 10 equity returns, which would be -- which would be
- 11 confidential in -- in usual circumstances. All I was
- 12 able to obtain was the -- the ownership percentages.
- 13 Similar for the community projects, and
- 14 again, you can see that in Manitoba, the revenue paid
- 15 to communities was substantially lower than in the
- 16 other jurisdictions and that's where my concern was
- 17 raised that the development of future wind projects
- 18 might require developers to share a bit more of the pie
- 19 than they have in the past.

20

21 (BRIEF PAUSE)

- 23 THE CHAIRPERSON: Could you -- could
- 24 you -- before I go further, I'm -- I'm trying to
- 25 understand the fifty thousand (50,000) per installed

- 1 megawatt. Now, that is just revenue to the community
- 2 involved?
- MR. RICK HENDRIKS: Yes. Yeah.
- 4 THE CHAIRPERSON: It does not include a
- 5 revenue that might be earned to the landowner, or --
- 6 MR. RICK HENDRIKS: No. No, it's --
- 7 it's above and beyond. Yeah, I should emphasize that.
- 8 Actually if we go back up, I think I include it in
- 9 here. Just back above the table. Yes. It is above
- 10 and beyond any taxation revenue or any compensation
- 11 revenue, or any -- any monies that are paid for
- 12 permitting. This is just revenue. It's extra -- I
- 13 won't say extra. Communities don't see it that way.
- 14 It's important to them.
- But -- can we just -- yeah, here it is.
- 16 Above and beyond amounts received from municipal
- 17 taxation, permitting, and landowner compensation.
- 18 THE CHAIRPERSON: So the operating --
- 19 operating and maintenance costs would be borne by --
- 20 MR. RICK HENDRIKS: By the Proponent.
- 21 Yeah, unless the community is an owner. Then they
- 22 would have their ownership share of -- of O&M costs,
- 23 yeah.
- 24 So I think we can -- I think we can
- 25 return now to the regular slide, if that's okay? So I

- 1 moved around. I -- the last slide that I gave to you I
- 2 believe was slide 91.
- 3 So I'm now going to move to slide 92.
- 4 This is information that I summarized already, that at
- 5 least seven (7) of ninety-two (92) projects have some
- 6 level of Aboriginal ownership. At least nine (9)
- 7 others have revenue sharing and benefits agreements.
- 8 The estimates are conservative due to confidential
- 9 agreements, or their agreement is still in negotiation.
- 10 All of the projects with agreements have come into
- 11 service since 2011, and two (2) projects are located on
- 12 private lands.
- One (1) thing I might also emphasize,
- 14 particularly with ownership, Aboriginal communities may
- 15 be surrounded by ten (10) wind projects, but may only
- 16 have the financial ability to get involved with -- with
- 17 one (1) or two (2), nd so we shouldn't necessarily read
- 18 the -- the low numbers on ownership participation, you
- 19 know, when -- when the ratio is seven (7) of ninety-two
- 20 (92), it may be the case that they're maxed out. You
- 21 know, they -- they've put in their maximum amount that
- 22 they have available to invest in the wind industry.
- 23 So I -- I wouldn't want to leave you
- 24 with the impression that there isn't interest, because
- 25 there is strong interest. In fact, since I wrote this

- 1 report, there is another project. The Mi'qmaq
- 2 communities in Quebec have reached an agreement at --
- 3 with Innergex on a large project in Quebec which has
- 4 already got a PPA, and they are going through the
- 5 regulatory process. So things continue to evolve, and
- 6 the opportunities are there.
- 7 Slide 93. Just to clarify then, so
- 8 Aboriginal ownership of wind projects can and does
- 9 occur on Crown and private land in response to the
- 10 concern that -- that Hydro had raised in the NFAT, that
- 11 there would be no Aboriginal participation in wind.
- 12 And I just want to emphasize that -- that I would
- 13 expect that Aboriginal groups in southern Manitoba,
- 14 including the Metis and First Nations, would -- would
- 15 take interest in the development of wind develop -- in
- 16 wind projects, and would want to participate if that
- 17 were to transpire.
- In terms of community involvement, I'm
- 19 now on slide 94, just summarizing again. So forty-one
- 20 (41) of the ninety-two (92) altogether had equity or --
- 21 or revenue sharing arrangements, again above and beyond
- 22 taxation, permitting, and land owner compensation.
- 23 Slide 95. Again, the summary of the
- 24 financial benefits amounting to fifty thousand dollars
- 25 (\$50,000) per installed megawatt.

24

25

10418 So finally, conclusions. Slide 96. 1 2 Now moving to slide 97. Going way back to the beginning of the presentation, the conclusions 3 and recommendations to government provided by the CEC in relation to the Keeyask project, though necessary to the NFAT, will apply only to that development, to a 7 single component of the PDP, and to those alternative plans that contain Keeyask as a plan component. As a result, other means to determine 10 the likelihood of significant adverse environmental changes or effects -- excuse me -- as well as the con -11 12 - the consequence of these changes need to be used in the absence of information from additional -- or even 13 14 to supplement available information, if you will, or 15 absence of full information might be a better way to 16 say that, from additional environmental assessments of 17 the PDP. 18 Slide 98. Considering the current 19 relatively modest differences between the cost of wind resources and the cost of hydroelectric resources, 20 21 they'll likely decline in the cost of wind resources, 22 and the imposition of the macroenvironmental impacts

associated with the PDP does appear -- appears to be

merit in analyzing the most appropriate strategy for

delaying a decision on the PDP beyond 2030.

- 1 And I might say, that is the word-for-
- 2 word conclusion of my report. I did not change it.
- 3 But I think it is reenforced, in my view, by the
- 4 findings of La Capra with respect to Plan 17 and that
- 5 there might be other resources available that could be
- 6 part of that economic delay strategy, including DSM and
- 7 interconn -- transmission -- interconnection, et
- 8 cetera.
- 9 The fact that so many wind projects have
- 10 been approved in Canada, including the development of
- 11 many projects in the Gaspe region of Quebec, as well as
- 12 near to my home in south -- Southern and Southwestern
- 13 Ontario, without concerns respecting significant
- 14 residual adverse environmental effects contrast with
- 15 the findings of environmental assessment reviews of
- 16 large-scale hydro electric projects in the same
- 17 jurisdictions.
- 18 Slide 99. Considering the current
- 19 relatively modest differences between the cost of wind
- 20 resources and the cost of hydroelectric resources --
- 21 excuse me, that's a repeat slide. I apologize for
- 22 that.
- 23 Moving to slide 100. To best achieve
- 24 this potential, development of additional wind
- 25 resources should be preceded by development of

- 1 cumulative effects management framework aimed at
- 2 identifying those locations most economically,
- 3 ecologically, and socially suitable for future wind
- 4 energy development. This would have the effect of
- 5 minimizing the potential for macroenvironmental and
- 6 socioeconomic impacts related to more intensive wind
- 7 development as part of any future alternative plan to
- 8 the PDP.
- 9 The development of many wind projects in
- 10 other jurisdictions supports the characterization of
- 11 wind resources as a flexible system planning option.
- 12 They can be developed on short time frames in a
- 13 sequence that avoids costly surpluses and in a manner
- 14 that supports the maximization of socioeconomic
- 15 benefits for Manitobans, including Aboriginal groups.
- 16 Slide 101. Finally, as a result of
- 17 public knowledge of wind energy and the many examples
- 18 of communities participating as owners in the
- 19 development of wind resources and other small scale
- 20 renewables, a different approach to that used
- 21 previously in Manitoba -- Manitoba will be necessary in
- 22 order to achieve the highest levels of socioeconomic
- 23 benefits for Aboriginal communities and for Manitobans
- 24 in general.
- Thank you. That's the end of my

10421 presentation. 2 3 (BRIEF PAUSE) 5 MS. MARILYN KAPITANY: Thanks for that, Mr. Hendriks. I noticed that you spoke a lot about wind power, but you didn't speak really about solar. 7 And I'm wondering, is that because solar 8 wasn't included in any of the development plans that were before us, or is there another reason that you 10 11 didn't refer to solar in your discussion? 12 13 (BRIEF PAUSE) 14 15 MR. RICK HENDRIKS: I would say the main reason was that I was requested by my client to look at wind. Wind, when I looked at the initial 17 18 information, in terms of current -- as in today -prices of wind and solar, potential cost, that is, wind is still considerably cheaper than solar. 21 I do -- I -- I am very aware -- I am a 22 avid solar supporter in my hometown. I'm a part of a -- of a co-op. We monitor the prices for solar very 24 closely. They continue to fall. But I chose to look at wind simply because of its current status. But I do

10422 think the evolving status of solar is an important 2 consideration. 3 (BRIEF PAUSE) 5 6 THE CHAIRPERSON: I have a question 7 relating to slide 14, please, if Diana could call that up. 9 10 (BRIEF PAUSE) 11 12 THE CHAIRPERSON: Now, I'm looking at the first bullet. You indicate that there are other 13 indicators of socioeconomic impact that are relevant to 14 15 Aboriginal communities. 16 Could you speak about that briefly? 17 MR. RICK HENDRIKS: Sure. The 18 definition had a list of indicators in it, which I don't recall immediately off the top of my head. For 19 example, I don't believe health was -- community health, for example, was listed among those indicators 21 22 explicitly. That would be one (1) that could be of 23 interest to Aboriginal communities. 24 Quiet enjoyment of the land, often 25 something I hear from Aboriginal communities, it's not

- 1 easily categorized, but I think it is a socioeconomic
- 2 effect.
- 3 Loss of place, another value that's
- 4 often stated by Aboriginal communities that I work
- 5 with. Those are a few that I -- that come to mind.
- 6 THE CHAIRPERSON: Thank you for that.
- 7 That's all the questions the panel has for now. So
- 8 I'll turn the microphone over to Ms. Menzies.
- 9 MS. MEGHAN MENZIES: Thank you. And I
- 10 think the first order of business will be for us to
- 11 introduce CAC Exhibit 45-15, which is CAC (Manitoba)'s
- 12 book of documents. And I'll just wait for that to be
- 13 handed out.

14

15 --- EXHIBIT NO. CAC-45-15: Book of Documents

16

- 17 MS. MEGHAN MENZIES: And I believe that
- 18 it's been distributed. And it was sent out last night
- 19 for anyone's -- for further interest.

- 21 CROSS-EXAMINATION BY MS. MEGHAN MENZIES:
- MS. MEGHAN MENZIES: All right, good
- 23 morning, Mr. Hendriks.
- MR. RICK HENDRIKS: Good morning.
- MS. MEGHAN MENZIES: I know we've met

- 1 before, but my name is Meghan Menzies. And I -- I
- 2 represent the Consumers' Association of Canada Manitoba
- 3 branch.
- 4 MR. RICK HENDRIKS: Thank you.
- 5 MS. MEGHAN MENZIES: And I would like
- 6 to apologize to the court reporter. My voice is kind
- 7 of hoarse today. I don't know if that comes across in
- 8 the transcript, but if it does, my apologies.
- 9 So, Mr. Hendriks, as we've heard this
- 10 morning and as I see in your CV, you consulted on the -
- 11 BC Hydro's Integrated Resource Plan from 2012 to
- 12 2013.
- 13 Is that correct?
- 14 MR. RICK HENDRIKS: Yes, that is
- 15 correct. Actually, I may have started consulting as
- 16 early as 2011.
- MS. MEGHAN MENZIES: Okay. Thank you.
- 18 And would it be correct to say that through your work
- 19 in BC, you've had some level of famil -- you have some
- 20 level of familiarity with the 2013 BC Integrated
- 21 Resource Plan?
- MR. RICK HENDRIKS: Yes.
- 23 MS. MEGHAN MENZIES: And is it your
- 24 understanding that the BC Hydro 2013 Integrated
- 25 Resource Plan is BC Hydro's most recent Integrated

- 1 Resource Plan?
- MR. RICK HENDRIKS: Yes, that's
- 3 correct.
- 4 MS. MEGHAN MENZIES: And would it be
- 5 your understanding that, in terms of resource
- 6 optimization, BC Hydro initially looked at five (5)
- 7 different DSM options?
- 8 MR. RICK HENDRIKS: Yes, that is
- 9 correct.
- 10 MS. MEGHAN MENZIES: And further, would
- 11 it be your understanding that BC Hydro ultimately
- 12 modelled three (3) different DSM options in its system
- 13 optimizer?
- 14 MR. RICK HENDRIKS: That is correct,
- 15 with -- with one (1) exception. They actually only
- 16 modelled two (2). I should clarify this for the Board.
- 17 In the 2012 draft IRP, they -- BC Hydro screened
- 18 resources, so they determined which are cost effective.
- 19 They had five (5) options, as Ms. Menzies has pointed
- 20 out, and three (3) were deemed cost effective: DSM
- 21 Option 1; DSM Option 2; and DSM Option 3.
- When they got to the final IRP, those
- 23 three were still cost effective. However, BC Hydro
- 24 made an adjustment to its IRP. They were concerned
- 25 that if DSM Option 3 were -- well, they were concerned

10426 about losing the proposed start date for the Site C Project, and so they fixed the start date at 2024. And this had the effect of penalizing DSM Option 3 even though the option was cost effective. 5 So I just -- I just wanted to clarify that. So at the end, if you look at the list which is 7 there, which I believe is on page 65... 8 MS. MEGHAN MENZIES: Yes. And -- and just to direct the Board to that page, that is -- in the book of documents, that is page 75, I believe. 10 11 That's --12 MR. RICK HENDRIKS: So just -- just let 13 me... 14 15 (BRIEF PAUSE) 16 17 MR. RICK HENDRIKS: Thank you. It's on 18 the screen. Very good. I thought I was still in 19 control. So if you see there, you will see DSM Options 1, 2/DSM target. So DSM target refers to that DSM 21 option, which was the one (1) that was selected, if you 22 will, or that was the target option or the one (1) carried forward and ... 23 24 So DSM Option 3 is not listed there. So

it was not -- it was, in a sense, bumped, subject to

- 1 check. I'm going to have to get perhaps exact wording
- 2 on this. But by fixing that date for Site C, DSM
- 3 Option 3 was no longer available to the resource
- 4 selection system optimizer.
- 5 So that was an observation that we made
- 6 during the process and, you know, that we felt was
- 7 important that an available resource option was -- and
- 8 a cost-effective resource option was not -- was not
- 9 considered in the final IRP.
- 10 MS. MEGHAN MENZIES: And just to
- 11 clarify, Mr. -- Mr. Hendriks, so if we're looking at
- 12 page 465 -- so please correct me if I'm wrong. But
- 13 what I read here is:
- "DSM Options 1; 2, DSM target; and 3,
- 15 savings."
- 16 Can you clarify what -- what, "3,
- 17 savings," refers to?
- 18 MR. RICK HENDRIKS: I cannot. I don't
- 19 know what that means.
- MS. MEGHAN MENZIES: But your
- 21 understanding would be that it's not referring to DSM-
- 22 3?
- 23 MR. RICK HENDRIKS: My understanding is
- 24 that it's not referring to DSM Option 3 for the reasons
- 25 that I explained.

10428 1 MS. MEGHAN MENZIES: Thank you. 3 (BRIEF PAUSE) 5 MS. MEGHAN MENZIES: Mr. Hendriks, much of your report -- or portions of your report make reference to an upcoming decision by Manitoba's Clean 7 Environment Commission with regard to the Keeyask dam. 9 Is that correct? 10 MR. RICK HENDRIKS: Yes, at -- at the 11 time, it was an upcoming decision. My understanding is 12 that it's no longer. But, yes, that's correct. 13 MS. MEGHAN MENZIES: And so to follow 14 up with that, you are then aware that the Clean 15 Environment Commission has now released its final 16 report? 17 MR. RICK HENDRIKS: Yes, I am aware of 18 that. 19 MS. MEGHAN MENZIES: One (1) of the things that I understand from your evidence is that due 21 to the relative permanency of hydroelectric resources, you would recommend that the Board review the CEC 22 23 report, paying particular attention to the uncertainty 24 assigned to predicted effects. 25 Is that correct?

- 1 MR. RICK HENDRIKS: Yes, that is
- 2 correct.
- 3 MS. MEGHAN MENZIES: And further, I
- 4 understand from your evidence that you would recommend
- 5 that where the CEC has considered effects to be
- 6 moderately or likely to occur, this Board should assume
- 7 that they will occur.
- 8 Is that a fair understanding?
- 9 MR. RICK HENDRIKS: Yes, that was my
- 10 recommendation. Yes.
- MS. MEGHAN MENZIES: And have you had
- 12 an opportunity to review the CEC's final report?
- MR. RICK HENDRIKS: I have not. I have
- 14 glanced at certain portions. The Site C panel report
- 15 came out the same day, so I have been quite
- 16 preoccupied. I apologize. I would like to have read
- 17 it, but...
- 18 MS. MEGHAN MENZIES: Fair enough.
- 19 Well, hopefully the portions that I refer to you have
- 20 referred -- you have reviewed. And if not, we can move
- 21 along. But I would like to turn again to CAC Exhibit
- 22 45-15 and to page 3 of the book of documents.
- 23 And can you confirm that this is page
- 24 138 of the CEC's final report?
- MR. RICK HENDRIKS: Yes.

10430 MS. MEGHAN MENZIES: And have you had 1 an opportunity to review this page? 3 MR. RICK HENDRIKS: I have read it. I -- I must confess I read it fairly quickly, but I have read it. 6 MS. MEGHAN MENZIES: Okay. Well, if 7 I'm pushing you too far when it comes to -- to these references, please let me know. Or I'm sure you will 9 let me know. 10 In the third paragraph on this page, 11 would it be your understanding that the Clean 12 Environment Commission says that: 13 "There is a potential that lake 14 sturgeon and woodland carible --15 caribou will experience significant 16 cumulative effects." 17 MR. RICK HENDRIKS: Sorry, the -- the 18 third paragraph being the one (1) that starts with the word, "One"? 19 20 MS. MEGHAN MENZIES: Yes. 21 MR. RICK HENDRIKS: Okay. Could you --22 could you repeat the question please? 23 MS. MEGHAN MENZIES: Most definitely. 24 Would it be your understanding that the Clean 25 Environment Commission says that:

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10431
 1
                      "There is a potential that lake
 2
                      sturgeon and woodland caribou will
 3
                      experience significant cumulative
                      effects."
 5
 6
                          (BRIEF PAUSE)
 7
                  MR. RICK HENDRIKS: Can you return just
   to the start of the paragraph? I'd like to -- I'd like
10
   to reread it please?
11
                   MS. MEGHAN MENZIES: If it's of any
   assistance, I believe this is page 3 of the book of
13
   documents if you have that before you.
14
15
                          (BRIEF PAUSE)
16
17
                  MR. RICK HENDRIKS: Yes, I would agree
18
  with that.
19
                   THE CHAIRPERSON: It's not quite --
20
                  MS. MEGHAN MENZIES: And could you --
21
                   THE CHAIRPERSON: -- I'm just -- I just
   want to -- don't want to belabour this point, but it's
22
23
   not quite what it says here as I read it. It says
24
   there's a potential for the combination of past,
   present, and future to have -- to have a significant --
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10432 the potential. So are -- are we misread -- are you and I misreading this? Are we at odds here? MR. RICK HENDRIKS: Well, that -- in 3 terms of the question I recorded here that you asked the word -- you included the word 'potential'. 6 7 CONTINUED BY MS. MEGHAN MENZIES: 9 MS. MEGHAN MENZIES: That's -- that's correct. I believe -- I could repeat the question if 10 11 it -- if it --12 MR. RICK HENDRIKS: Perhaps that would 13 be helpful. 14 MS. MEGHAN MENZIES: And the question 15 was that: Would it be your understanding that the 16 Clean Environment Commission says that: 17 "There is a potential that lake 18 sturgeon and woodland caribou will 19 experience significant cumulative effects." 20 21 But perhaps I should have highlighted 22 that. 23 MR. RICK HENDRIKS: Okay. Yes, my 24 response to the question that -- upon clarification, it 25 remains the same. It's yes.

10433 MS. MEGHAN MENZIES: Okay. 1 Hendriks, could you please explain how, if at all, these findings from the Clean Environment Commission 3 apply to the recommendations within your evidence? 5 6 (BRIEF PAUSE) MR. RICK HENDRIKS: Yes. In terms of the implications to my recommendations, yes. 9 10 11 (BRIEF PAUSE) 12 13 MR. RICK HENDRIKS: I'll speak to two 14 (2) issues. One (1) relates to Conawapa, the other to 15 Keeyask. It's my view that these findings from the CEC 16 need to be read alongside the information in the NFAT 17 with respect to the potential environmental effects and 18 the significance of those effects for the Keeyask 19 Project. So they need to be along -- read alongside the other environmental information that is contained in the NFAT. 21 22 That goes to my recommendation -- or my 23 conclusion, I guess, that I made with respect to the --24 or observations that I made to the Conawapa Project as well, and the PDP more generally, that -- a question

- 1 was asked much earlier in this proceeding of MNP, of
- 2 whether or not there -- if there are significant
- 3 effects of the Keeyask Project or not, what would that
- 4 mean for significant effects conclusions with respect
- 5 to Conawapa?
- And my understanding of the response
- 7 that was given by MNP, and I agree with that response,
- 8 which was that if there were significant effects from
- 9 Keeyask, there would be significant effects from
- 10 Conawapa, and so I would add -- if I were asked that
- 11 question, I would -- so my -- excuse me. So in terms
- 12 of my conclusions about the uncertainty around
- 13 Conawapa, which I raised in my comments, this does
- 14 provide some greater certainty with respect to the
- 15 likely significant adverse amount of environmental
- 16 effects of Conawapa.
- 17 But I would -- I would want to add just
- 18 a couple caveats about that. We don't yet have a
- 19 cumulative effects management framework, so that could
- 20 further exacerbate the conclusions here. So expanding
- 21 on the -- on the, I guess, the significance, if you
- 22 will, of the cumulative effect on these species.
- 23 And I want to reiterate the point that I
- 24 made earlier, that this environment is still changing,
- 25 and so the conclusions for Conawapa would be subject to

- 1 -- to those changes, which hopefully we will understand
- 2 better once we have the cumulative effects management
- 3 framework in place.
- 4 MS. MEGHAN MENZIES: Thank you. And
- 5 just to narrow that question just slightly --
- 6 MR. RICK HENDRIKS: Sure.
- 7 MS. MEGHAN MENZIES: So I -- I believe
- 8 your response to my question previously of whether or
- 9 not it was your understanding that your evidence
- 10 recommends that where the Clean Environment Commission
- 11 has considered effects to meet -- has considered
- 12 effects to be moderately or likely to occur, the Board
- 13 should assume that they will occur.
- 14 How does that recommendation align with
- 15 the -- the conclusions of the Clean Environment
- 16 Commission with regard to lake sturgeon and woodland
- 17 caribou?
- 18 MR. RICK HENDRIKS: Yes. The reason I
- 19 made that recommendation with respect to moderately
- 20 likely to occur is because there is an uncertainty.
- 21 There's always uncertainty in environmental assessment.
- 22 And what -- what my reading of the CEC materials is
- 23 that they say here there is potential. They have not
- 24 used the word 'likely' or 'unlikely', but I would
- 25 interpret that word 'potential' to mean 'moderately

PUB re NFAT 05-12-2014 10436 likely'. 2 And so further to my recommendation, I would say this would be an instance where I would --3 what I would -- where I would be recommending that the Board presume that -- that that would happen. 6 MS. MEGHAN MENZIES: Thank you very much, Mr. Hendriks, and that concludes the questions from CAC (Manitoba). 9 10 (BRIEF PAUSE) 11 12 THE CHAIRPERSON: Thank you, Ms. 13 Menzies. Mr. Gange, please. 14 15 CROSS-EXAMINATION BY MR. WILLIAM GANGE: 16 MR. WILLIAM GANGE: Thank you, Mr.

- 17 Chair. Mr. Hendriks, I only have a few questions, but
- 18 if -- if I may, there are a number of points in your
- 19 presentation where you refer to the Preferred
- 20 Development Plan and where you've made comments about
- 21 the lack of information with respect to Conawapa.
- 22 Am I taking it from that that the
- 23 concerns that -- that you've raised are -- are
- 24 primarily with respect to the lack of information that
- 25 -- that you have, or -- and that the Board has with

10437 respect to the Conawapa development? 2 3 (BRIEF PAUSE) 5 MR. RICK HENDRIKS: Yes and no. Clearly, I don't have access to all the information about the Conawapa Project that the Proponent would 7 have. Sorry. However, I did note in my submission that my feeling was that the determination of significant environmental effects at Conawapa would 10 have to be pursuant to an environmental assessment. 11 12 And so I guess what I'm saying is, in 13 some cases, there is information that is out there that I don't have, and then there's other instances where 14 15 there -- there's information that's not yet out there, 16 so. 17 MR. WILLIAM GANGE: Yes. And it's that 18 -- that -- part of the concern is that -- that there's 19 information that isn't yet out there to anybody. Is -is that correct, sir? 21 MR. RICK HENDRIKS: Yes, that's 22 correct. 23 MR. WILLIAM GANGE: If -- if you could 24 go to -- Diana, if you could go to slide 27? Mr. Hendriks, the -- the last entry there, when you say

- 1 that, "NFAT handicaps technology with expected
- 2 improvement," I wasn't really sure what you meant by
- 3 that.
- 4 Are you saying that -- that the -- the -
- 5 not the NFAT, but the -- is -- is it because the --
- 6 the models that have been run by Manitoba Hydro
- 7 handicaps the technology, correct, sir?
- 8 MR. RICK HENDRIKS: Yes, that's
- 9 correct.
- 10 MR. WILLIAM GANGE: So it's not this
- 11 hearing that's doing the handicapping, it's the
- 12 modelling that's been done leading up to it?
- MR. RICK HENDRIKS: Yes, that is my
- 14 understanding, and that -- that that was what was
- 15 intended by La Capra when -- when that was written.
- 16 MR. WILLIAM GANGE: Right. Okay. And
- 17 -- and one (1) of the concerns that -- that my clients
- 18 have had, and you may have had the opportunity of
- 19 reviewing the transcript and the presentations of Mr.
- 20 Stevens and Mr. -- and Mr. Chernick, was that -- that
- 21 the pres -- or the -- the modelling that was done with
- 22 respect to wind was not robust enough.
- You would agree with that, sir?
- 24 MR. RICK HENDRIKS: I'm not in a
- 25 position to -- to say. I have not reviewed the

- 1 modelling with respect to wind.
- 2 MR. WILLIAM GANGE: Okay.
- 3 MR. RICK HENDRIKS: Just to clarify,
- 4 I'm assuming you're referring to resource selection
- 5 model -- modelling or economic modelling.
- 6 MR. WILLIAM GANGE: Well, no the --
- 7 what I'm talking about is -- is the development plans
- 8 that were put forward by -- in this process by Manitoba
- 9 Hydro. That's what I'm referring to. Okay. Thank
- 10 you.
- 11 The -- the -- are you in agreement, sir,
- 12 that the intertie is a valuable part of this process?
- 13 MR. RICK HENDRIKS: Yes, I am.
- 14 MR. WILLIAM GANGE: And the intertie is
- 15 valuable for a number of reasons, but not the least of
- 16 which is the -- the impact that it has upon risk for
- 17 Manitoba Hydro, correct, sir?
- 18 MR. RICK HENDRIKS: I would agree with
- 19 that in the sense that it provides other options that
- 20 would not be available now, yes.
- 21 MR. WILLIAM GANGE: So -- so that in
- 22 the -- in -- in a situation where there's a drought in
- 23 Manitoba, there's -- there would be a greater capacity
- 24 to import electricity for a short period of time.
- You'd agree with that, sir?

- 1 MR. RICK HENDRIKS: I would -- I would
- 2 agree with that, yes.
- 3 MR. WILLIAM GANGE: And in the
- 4 references to -- to the intertie, from your review, was
- 5 it your understanding that the -- that the intertie can
- 6 be built without the construction of -- of Keeyask?
- 7 MR. RICK HENDRIKS: I did not review
- 8 enough of the -- of -- of the NFAT documentation to
- 9 take a position on that.
- 10 MR. WILLIAM GANGE: Fair enough. Thank
- 11 you. When -- when the discussion -- when -- in your
- 12 paper is -- makes reference to Preferred Development
- 13 Plan, you -- and -- and your commentary about some of
- 14 the negative aspects of the Preferred Development Plan
- 15 because of the lack of information, you're not breaking
- 16 that down to say that those same negative aspects apply
- 17 with respect to the intertie and the development of
- 18 Keeyask, are you?
- 19 MR. RICK HENDRIKS: To the extent that
- 20 there would be adverse effects from the PDP, which
- 21 includes Keeyask, Conawapa, and the transmission lines
- 22 -- to the extent that those are attributable to the
- 23 various components, I -- I would be saying that they
- 24 were attributable to -- to those components, yes.
- MR. WILLIAM GANGE: Yes, and -- and

- 1 what I was trying to concentrate on was if you take
- 2 Conawapa out of the mix so that you -- you -- we just
- 3 are looking at Keeyask and the intertie, I -- I'm just
- 4 kind of interested, sir, in whether your assessment,
- 5 after doing the review that you've done with the
- 6 information that's available to all of us, given that
- 7 none of us have access to the -- the CSI.
- 8 But just on the basis of what you've
- 9 seen, is -- is the Keeyask with the intertie a -- a
- 10 positive development for Manitoba Hydro?
- MR. RICK HENDRIKS: I have not -- not
- 12 undertaken a de -- a detailed assessment of this. I
- 13 will respond, however. I think that -- that the
- 14 certain macroenvironmental impacts would be reduced as
- 15 a result, particularly biophysical impacts.
- 16 However, I would presume that Keeyask
- 17 with -- in order to fairly compare development plans, I
- 18 would anticipate that there would be more gas
- 19 generation with the Keeyask transmission, because if
- 20 you're losing Conawapa, you're going to have to replace
- 21 it with something.
- 22 And so there would be a trade-off there
- 23 in terms of the biophysical impacts being reduced, but
- 24 other impacts, perhaps greenhouse gas emissions, and
- 25 not even perhaps greenhouse gas emissions being

- 1 increased. So I have not undertaken a -- a modelling
- 2 or -- or comparison in that regard. That would be my
- 3 observation, however.
- 4 MR. WILLIAM GANGE: But one (1) of the
- 5 options that would be available, sir, would be that if
- 6 Keeyask were built, then the -- the extra generation
- 7 could well be the wind --
- 8 MR. RICK HENDRIKS: Yes. Yes.
- 9 MR. WILLIAM GANGE: -- the wind plants?
- 10 MR. RICK HENDRIKS: It could be wind
- 11 plants backed up with gas, yes, and so in that sense,
- 12 wind with gas as opposed to just gas would be an --
- 13 would then act to improve upon the impacts associated
- 14 with GHG emissions. Yes.
- MR. WILLIAM GANGE: Or, sir, it could
- 16 be Keeyask wind backed up by the intertie, couldn't it,
- 17 sir?
- 18 MR. RICK HENDRIKS: Yes, the intertie
- 19 could be used. It's my understanding that it could be
- 20 used for capacity support. Yes.
- 21 MR. WILLIAM GANGE: So -- so that -- so
- 22 that that extra firming up capacity of the gas, that is
- 23 one (1) of the benefits of the transmission line.
- You'd agree with that, sir?
- MR. RICK HENDRIKS: Yeah. Yeah, my

- 1 sense is that the transmission line, all things being
- 2 equal, would -- would make better use of any facilities
- 3 that might be on standby, for example, in the US or in
- 4 -- in the markets to which that transmission line would
- 5 be connected.
- And so I would anticipate, and again I
- 7 have not modelled this, but I would anticipate that
- 8 those facilities would be more efficiently used, and so
- 9 you would see a reduction overall in greenhouse gas
- 10 emissions per unit of energy.
- MR. WILLIAM GANGE: Thank you, Mr.
- 12 Hendriks. Those are my questions. Thank you, Mr.
- 13 Chair, appreciate it.
- 14 THE CHAIRPERSON: Mr. Hendriks, you
- 15 know, I went through your report last night again, and
- 16 I didn't -- you didn't discuss a great deal the
- 17 intertie issue, did you? I mean, beyond -- beyond
- 18 knowing it's part of the Preferred Development Plan and
- 19 so on?
- 20 MR. RICK HENDRIKS: No, I looked at it
- 21 only in the context of Plan 17. Yeah.
- 22 THE CHAIRPERSON: Okay. So, you know,
- 23 reading your report, it's clearly you -- you indicated
- 24 wind is a very viable option to the Keeyask -- Keeyask
- 25 proposal that's before this panel, at least the

- 1 Preferred Development Plan proposal, which includes the
- 2 Keeyask at the front end. It's clearly -- you -- you
- 3 suggest, I think, that wind is probably a more viable
- 4 option in the Keeyask project from a -- from a number
- 5 of standpoints, environmental and so on.
- 6 Am I misreading your report?
- 7 MR. RICK HENDRIKS: Not necessarily.
- 8 What I've tried to demonstrate in my report and in the
- 9 conclusions that wind could play a much larger role in
- 10 the province here, and I indicated a number of ways in
- 11 my report where that could happen.
- 12 It could happen as part of a -- a number
- 13 of different development paths. I didn't disagree with
- 14 Hydro that wind could be on a number of -- of the five
- 15 (5) paths, but in terms of the macroenvironmental
- 16 effect issue, which is the one (1) that I looked at,
- 17 based on the -- the materials that I reviewed, the
- 18 macroenvironmental biophysical impacts and -- and other
- 19 impacts from wind would be less than for Keeyask and
- 20 Conawapa, yes.
- 21 THE CHAIRPERSON: Thank you for that.
- 22 Now, calling on Mr. Orle, please.
- 23 MR. GEORGE ORLE: Thank you, Mr. Chair.
- 24 MKO has no questions of this witness.
- THE CHAIRPERSON: Thank you, Mr. Orle.

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1 Me. Monnin, s'il vous plait.
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- 2 MR. CHRISTIAN MONNIN: Merci, M.
- 3 President. Any question I did have, have been
- 4 canvassed by Mr. Gange, so no questions. Thank you.

5

6 (WITNESS RETIRES)

7

- 8 THE CHAIRPERSON: Thank you for that.
- 9 I'm looking at the clock. I think it's probably an
- 10 appropriate time, rather than start -- ask Manitoba
- 11 Hydro to start immediately, it's probably an
- 12 appropriate time to take a break and we'll resume after
- 13 -- oh, Ms. Fernandes.
- 14 MR. WILLIAM GANGE: Mr. Chair, may --
- 15 may I -- may I interrupt for a second?
- THE CHAIRPERSON: Please.
- 17 MR. WILLIAM GANGE: With respect --
- 18 before we break, can I just introduce -- I've sent out
- 19 this morning GAC Exhibits 24 and 25. They've been
- 20 filed with Mr. Simonsen, and they are the Undertaking
- 21 Number 134 of Mr. Chernick during his testimony, and
- 22 Undertaking 135 of Mr. Chernick from his testimony. So
- 23 if we could put those on the record as GAC 24 and 25?
- 24 Thank you.

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10446
   --- EXHIBIT NO. GAC-24: Undertaking 134 of Mr.
 2
                               Chernick
 3
   --- EXHIBIT NO. GAC-25: Undertaking 135 of Mr.
 5
                               Chernick
 6
 7
                          (BRIEF PAUSE)
 9
                  THE CHAIRPERSON: Ms. Fernandes,
10
   please.
11
                  MS. ODETTE FERNANDES: Thank you, Mr.
   Chairman. I do have paper copies of the two (2)
13
   responses to undertakings I entered this morning, and
   then I'd also like to file a response to GAC Pre-ask
15
   Question 1, which was filed on April 25th, and that was
   for Manitoba Hydro to update the graph and commentary
   for Appendix 12-2 of its 2010/2012 GRA, and I suggest
17
18
  that be marked as Manitoba Hydro Exhibit number 196.
19
20 --- EXHIBIT NO. MH-196: Response to GAC Pre-ask
21
                               Question 1
22
23
                  MR. KURT SIMONSEN: So noted. Thanks.
24
                  THE CHAIRPERSON: Thank you, Ms.
25
   Fernandes. With that, I think it's probably an
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10447 appropriate time to recess for lunch. I would remind everyone that we have a presentation at 12:45, so after the presentation we will start the cross by Manitoba 3 Hydro. 5 So with that, presentation at 12:45. 6 We'll see you then. 7 --- Upon recessing at 11:53 a.m. --- Upon resuming at 12:47 p.m. 10 11 THE CHAIRPERSON: Good afternoon. Ι believe that we're ready to resume today's proceedings. 13 I'd like to welcome Mrs. Lorna Kopelow and her son, Leo. Welcome. And we're looking forward to hearing 14 15 from you. So go ahead, please. 16 17 PRESENTATION BY MS. LORNA KOPELOW: 18 MS. LORNA KOPELOW: Good afternoon, 19 Board members and everyone. My name is Lorna Kopelow. And I'm speaking on behalf of my neighbours and myself. 21 We are landowners who live along a potential route for 22 the proposed Manitoba/Minnesota transmission line. That is routes 201, 202, 203, and 204. 23 24 My life and the lives of my neighbours 25 changed in April. I remember the moment in the way

- 1 most of us remember where we were when Kennedy was
- 2 shot: a big, unexpected and horrifying thing. Hydro
- 3 was proposing to build two (2) big dams and send the
- 4 power to the US via a large 500 kilovolt transmission
- 5 line possibly through our land.
- 6 Since then, my neighbours and I have
- 7 gathered our energy, squeezed out some time from lives
- 8 that are already overloaded, and informed ourselves
- 9 about Keeyask, Conawapa, and the Manitoba/Minnesota
- 10 Transmission Project. In our view, the plan to
- 11 construct the dams and to transmit power to the US is a
- 12 mistaken one.
- Some key ideas I'm going to share with
- 14 you have to do with damage to our heritage, financial
- 15 impact, unfairness to our community in particular,
- 16 damage to our ecosystem, experimentation with our
- 17 health, threats to our security, Hydro's flawed route
- 18 selection process, misuse of the concept of
- 19 expropriation.
- 20 Our reactions to the bad news had
- 21 several common themes. We saw our plans for the future
- 22 disappearing. Many of us had planned on building other
- 23 dwellings on our land for children and grandchildren.
- 24 If the planned transmission line goes through, those
- 25 sites will be occupied by 200-foot-high towers and

10449 terrain sprayed bare. 2 This is Linn and her family who says: 3 "This has been my home for twenty-six (26) years. I have raised six (6) 5 children and many foster children 6 here. My older son has blueprints drawn up to build and live here with his family. The build site would now 9 be impossible." 10 Linn also runs a retreat and healing 11 program for troubled youth, many of them Aboriginal. 12 She teaches them to track, hunt, gather healing plants, and live in the woods. 13 14 In his book, 'Last Child in the Woods', 15 Richard Louv writes, quote: 16 "A growing body of research links our 17 mental, physical, and spiritual 18 health directly to our association with nature. Several of these 19 20 studies suggest that thoughtful 21 exposure of youngsters to nature can 22 even be a powerful form of therapy 23 for attention deficit disorders and 24 other maladies." 25 End quote. As well, Linn and her family

- 1 supplement their diet with bear, deer, and berries from
- 2 the forest. Other neighbours have had their land
- 3 passed down to them through several generations and
- 4 they are deeply rooted in the heritage they have
- 5 received.
- 6 As we absorbed the bad news, we saw the
- 7 largest investment one usually makes in life slashed.
- 8 Who would want to buy a property with this gigantic
- 9 transmission line going through it?
- 10 Many of us already have a hydro line
- 11 running through our land. We have already done our
- 12 civic duty, and help provide the means for Manitobans
- 13 to receive electricity. The idea of building another
- 14 larger and more powerful line alongside the first one
- 15 is similar to running someone over, and then backing up
- 16 and running over them again. only this time with a
- 17 steamroller. Along the Highway 15 portion of this
- 18 route, the Manitoba/Minnesota corridor would be a third
- 19 line, resulting in a gigantic right-of-way about 700
- 20 feet wide, a hydro wasteland.
- 21 We keenly feel the threat to the loss of
- 22 our wilderness. We chose our locations because we love
- 23 the plants and animals, the peace and quiet there.
- This is Jim and Donna, who have
- 25 designated a portion of their land as a conservation

- 1 area. You can see a beaver dam in the background.
- 2 My next-door neighbours, Ron and Deb,
- 3 took these photos of sandhill cranes on their property.
- 4 Deb says, I am of Metis descent, and nature and what it
- 5 has to offer is very important to me. We enjoy the
- 6 abundance of wildlife that we see on our property and
- 7 the natural habitat that we have surrounding us. We do
- 8 not want to look out our front window and see large
- 9 steel towers in front of our home.
- 10 Much of our area is wetland, like this
- 11 neighbour's yard. And we all know that wetland plays
- 12 an important role in preventing flooding and soil
- 13 erosion; storing, filtering, and purifying water; and
- 14 providing exceptional biodiversity. In fact, during
- 15 spring and fall migration I often hear flocks of geese
- 16 and ducks settling down for the night in the woods near
- 17 my house.
- 18 Other wildlife in our area are black
- 19 bears, deer, coyotes, cougars, foxes, beavers,
- 20 muskrats, mink, otters, skunks, wolves, fishers,
- 21 woodchucks, squirrels, chipmunks, snowshoe hair,
- 22 salamanders, frogs, toads, snakes, and many, many more.
- 23 Our woods and meadows are full of a huge variety of
- 24 wild plants. Much of the land in our area has never
- 25 been cleared, and the forests are populated by

- 1 Tamaracks, poplars, cottonwoods, spruce, pine, oak,
- 2 high-bush cranberries, wild plums, saskatoons, choke
- 3 cherries, pin cherries, dogwood, willows, and again
- 4 many more.
- 5 A great variety of birds live in our
- 6 area. Among them blue birds, catbirds, thrushes, cedar
- 7 waxwings, ravens, bald eagles, great horned owls,
- 8 screech owls, great grey owls, killdeer, sandpipers,
- 9 red headed woodpeckers, pileated woodpeckers, northern
- 10 flickers, and northern shrikes, to name only a
- 11 sampling. Near me there are at least five (5) nesting
- 12 pairs of whippoorwills, a species which is on
- 13 Manitoba's threatened list.
- Now comes the only part of this
- 15 presentation where there will be some humour. The
- 16 morning traffic report on CBC Radio last month included
- 17 a warning to watch out for the large flock of wild
- 18 turkeys who were occupying Highway 15. And the Highway
- 19 15 portion of the proposed route that I've been
- 20 describing is in a far less wooded area than the rest
- 21 of the proposed corridor's path.
- 22 As you can imagine, the soundtrack that
- 23 accompanies our lives is very pleasant, ranging from
- 24 near silence to full birds -- birdsong. You can gather
- 25 how we feel about the addition of a constant drone from

- 1 a high voltage power line.
- 2 As for plants, in our neck of the wood
- 3 you'll find pitcher plants, rare pink lady slipper,
- 4 many kinds of asters, goldenrod, marsh marigolds,
- 5 Culver's root which is on Manitoba's list of threatened
- 6 plants, and others too numerous -- numerous to name.
- 7 This slide shows some pictures taken by
- 8 a resident who says:
- 9 "The pictures contain just a small
- sampling of the wildflowers on my
- 11 property, all in a little spot where
- 12 the Hydro line would go." Hydro has
- not assessed the huge
- 14 environmental impact that would be
- 15 caused by a transmission line along this route.
- 16 Of course we also thought of our health.
- 17 While Hydro maintains that a definitive link has not
- 18 yet been proven between illness and proximity to a
- 19 hydro line, who wants to be a guinea pig for this
- 20 experiment? This is a photo from Ian, who says:
- "We have gone to great lengths to
- 22 ensure that our daughter grows up in
- a very healthy environment, and we
- 24 are worried about the impact on our
- 25 family."

10454 Ian is also concerned about the use of 1 herbicides on the right-of-way as he says: 3 "With such a high watertable around here, these things can get into the 5 water very easily. We have animals, 6 livestock, and run an all-natural product business that can all be compromised from this line." 9 Hydro corridors in the country quickly become routes for off-road vehicles and snowmobiles. 10 With a hydro corridor going through our land, an 11 12 intact, private, and beautiful space becomes a noisy 13 public roadway, bringing trespassers, vandalism, crime, theft of firewood, litter, illegal hunting on our land, 14 15 and partying. 16 Forest fires are frequently caused by a spark from an all-terrain vehicle igniting vegetation. 17 18 One (1) of our neighbours has been a rural fire chief 19 for thirty (30) years and has fought many a fire that travelled rapidly down the cleared Hydro corridors. 21 well, many of us heat our homes with firewood, and 22 losing a large swathe of forest would have a direct 23 impact on our ability to provide ourselves with heat. 24 I would also like to let this panel know my view on Hydro's process in choosing potential

10455 routes. While they claim to -- I am quoting here: 2 "...involve the public throughout the route selection and environmental 3 assessment processes; provide clear, 5 timely, and relevant information in 6 responses; and deliver a public engagement process that is adaptive and inclusive." 9 In fact, I was unaware that round 1 of 10 route selection was even going on. Some people in our area received notices in their mailboxes and some did 11 12 The route that would go across my land was not 13 even among the routes considered in round 1. 14 Suddenly, as I described at the start of 15 this presentation, I got a notice in my mail stating 16 that Hydro had narrowed their choices for routes down 17 to two (2), without input from the people living along 18 those two (2) routes, and that one (1) of them would go 19 across my property. This, to me, is neither logical 20 nor transparent. 21 Furthermore, I feel that every landowner 22 along a potential right-of-way should be informed by 23 phone. The cost of doing this is nothing compared to the financial penalty that this project would apply to 24 25 landowners. If Hydro cannot deliver on their

- 1 commitment to a transparent process, how can we trust
- 2 them to do the right thing for Manitobans?
- 3 We are well aware that the state has the
- 4 legal ability to expropriate private property for
- 5 public good. However, Hydro's view of what is in the
- 6 public interest is dramatically misaligned with the
- 7 view of our community and, I believe, most Manitobans.
- 8 Hydro's chief motivation for building the Manitoba-
- 9 Minnesota Transmission Line is to sell power to the US,
- 10 not to provide electricity to Manitobans. They are
- 11 making risky gambles with an extreme footprint, all in
- 12 the name of endless growth.
- 13 Hydro claims a secondary motivation in
- 14 this project: providing energ -- energy security for us
- 15 citizens. However, I'm absolutely certain that power
- 16 to abundantly meet our needs could be accomplished
- 17 through energy conservation. I'm in favour of Hydro's
- 18 current conservation ideas: its Power Smart
- 19 initiatives, the amazing new Hydro building downtown,
- 20 or the notion of charging customers at higher rates for
- 21 energy consumed beyond a certain threshold.
- However, I know that these initiatives
- 23 are just a drop in the bucket of what could be done.
- 24 For example, there is real innovation happening on the
- 25 demand reduction side, such as new advances in sensor

- 1 and reporting technology which allow homeowners to make
- 2 more informed choices about how and when they use
- 3 electricity. We, and the energy-hungry American
- 4 customers, have merely scratched the surface of demand-
- 5 side management.
- I would like to talk about risk. Energy
- 7 conservation is a sure thing, while mega-dams like
- 8 Keeyask and Conawapa and the hydro lines that accompany
- 9 them not only damage living beings and ecosystems, they
- 10 are financially risky.
- 11 The proposed expenditure is enormous,
- 12 and it seems that the plan is based on hope: Hope that
- 13 the price of gas and other sources of energy will go
- 14 up, while in fact they are going down. Hope that our
- 15 energy needs will grow, which they will if we do not
- 16 conserve.
- 17 If Hydro's hopes turn out to be
- 18 unfounded, it is the citizens of Manitoba who will pay
- 19 for their mistaken forecasts and decisions. This does
- 20 not seem like a healthy plan to me. What I would like
- 21 to see is for Hydro to step out of its traditional way
- 22 of thinking: mega-dams, big power lines, money-making
- 23 deals with the US that, to be blunt, would make money
- 24 on the backs of landowners like me; and to step into a
- 25 healthier, more modern mind set: diversifying energy

- 1 sources, taking a serious look at solar, wind, and
- 2 geothermal energy, creating a really strong sus --
- 3 thrust toward conservation, working to shine as a world
- 4 leader in demand-side management.
- 5 This, to me, is clearly the way to go
- 6 and the good path to follow. Ordinary citizens are
- 7 increasingly aware of the value of conservation and
- 8 alternative energy sources. These measures are
- 9 appreciated and approved of by most people at a time
- 10 when we are looking great planetary changes in the
- 11 face.
- 12 On the other hand, ordinary citizens,
- 13 especially those living on marginal or fixed incomes,
- 14 would be extremely upset by the increasing Hydro bills
- 15 that would follow on the heels of this project.
- 16 As you can gather from this
- 17 presentation, life for me and my neighbours since April
- 18 has not been good. We feel sad, and worried, and we
- 19 have nightmares. Our main source of hope, panel
- 20 members, is you. We hope that you, as an independent
- 21 body, will listen to our views and ideas with your
- 22 hearts and your heads. We hope that you will act as
- 23 conscientious gatekeepers to protect our province from
- 24 the numerous and negative consequences of Hydro's plan.
- We hope that you will oppose this

- 1 project. Finally, of course, we trust that the
- 2 Manitoba government will be guided by a wise and just
- 3 verdict on this project. And that verdict would be a
- 4 resounding 'no'.
- 5 Thank you very much for listening.
- THE CHAIRPERSON: Thank you, Mrs.
- 7 Kopelow. And just -- I have a question. Your property
- 8 is located where?
- 9 MS. LORNA KOPELOW: I can show you on a
- 10 map, if you like. But if I'm looking at this map
- 11 provided by Hydro at one (1) of the open houses, and
- 12 mine is right by 202. Okay. The little purple dot by
- 13 202 is mine.
- 14 THE CHAIRPERSON: We'll just wait till
- 15 that shows up on the screen.
- MS. LORNA KOPELOW: Sure.
- 17
- 18 (BRIEF PAUSE)
- 19
- MS. LORNA KOPELOW: Do you see that
- 21 little triangle there and a purple dot by the most
- 22 northerly corner? Yeah. That is my -- my land.
- 23 THE CHAIRPERSON: So you're just east
- 24 of the city?
- MS. LORNA KOPELOW: M-hm.

10460 THE CHAIRPERSON: Just a -- what looks 1 like a mile down from Highway 15. 3 Is that right? MS. LORNA KOPELOW: Six (6) miles south 5 of Highway 15. 6 THE CHAIRPERSON: Oh, six (6) miles, okay. Now, you -- you indicated there was another line 7 that's going across the property? 9 MS. LORNA KOPELOW: Yes, it's a two hundred (200) --10 11 THE CHAIRPERSON: What -- what can you 12 tell me --13 MS. LORNA KOPELOW: Sorry? 14 THE CHAIRPERSON: Could you tell me 15 what line that is? 16 MS. LORNA KOPELOW: Yeah, it's a 230 kilovolt line. I don't know the name of it. It's --17 18 it's smaller than the proposed Manitoba-Minnesota line, 19 but it does cross our property, yeah. 20 THE CHAIRPERSON: So, where does it run in relation to this -- the map we've got before us now? 21 22 MS. LORNA KOPELOW: It runs to the west 23 of my house. And I believe that for -- I'm not 24 entirely sure about this, I believe that for most of

the length of the proposed Manitoba-Minnesota line,

- 1 that that would be running west of the line that I
- 2 currently have going across my property. But you would
- 3 need to check with Hydro if that relationship would
- 4 cont -- continue all the way down the line.
- 5 I know that they told me at one (1) of
- 6 the open houses that it would be west of my current
- 7 line.
- 8 THE CHAIRPERSON: So the -- you know,
- 9 according to your presentation, I guess the round 1 has
- 10 gone -- gone by already, so --
- MS. LORNA KOPELOW: Yes.
- 12 THE CHAIRPERSON: -- you got notice of
- 13 round 2. Have you -- did you appear at round 2 or did
- 14 you --
- MS. LORNA KOPELOW: We went to the open
- 16 -- I went to the open houses and spoke to the different
- 17 representatives of -- of Hydro there. And I will fill
- 18 out the very minimal feedback form that you get and put
- 19 my views down on there and submit it to them.
- 20 But I would say that that is a really
- 21 minimal interaction to have with a corporation that's
- 22 planning on doing what they're hoping to do. You know,
- 23 an open house, talking to some representatives of the
- 24 Corporation, and then a -- I think it's a two (2) page
- 25 sheet with little spaces to fill out your responses.

10462 It -- to me, it's not very meaningful. 2 3 (BRIEF PAUSE) 5 THE CHAIRPERSON: I think that's all the questions the panel has. I -- I'd like to thank 7 you for a very well prepared presentation and excellent slides. I know you took the time -- you put a lot of effort into your presentation, and you certain conveyed 10 your concerns to us very eloquently. 11 So thank you very much for -- for the work you've done and taking the time to come and meet 13 with us. Thank you. 14 MS. LORNA KOPELOW: Thank you for the 15 opportunity. I really appreciate it. 16 17 (BRIEF PAUSE) 18 19 THE CHAIRPERSON: I believe that we're ready to resume the formal proceedings. So before we 21 turn the microphone over to Manitoba Hydro, I do want to make a statement on the record. The Board's panel 22 has considered the schedule further and has determined 24 that the closing submissions from Board counsel and 25 counsel for -- pardon me, for CAC and counsel for GAC

- 1 will be heard on May 20th starting at 9:00 a.m.
- The panel has also determined that to
- 3 the extent there is further rebuttal from Manitoba
- 4 Hydro on issues raised for the first time during the
- 5 oral testimony of the IEC witnesses and Intervenor
- 6 witness -- and Intervenor witnesses, it should be
- 7 provided to the panel and all parties in writing by
- 8 noon on Friday May 16th, 2014.
- 9 The Board already has the hundred and
- 10 forty-five (145) pages of written rebuttal from
- 11 Manitoba Hydro which has been marked as Exhibit MH
- 12 number 85. Additionally, the Board has a written
- 13 rebuttal from Manitoba Hydro in respect of the evidence
- 14 of Whitfield Russell Associates that was filed on May
- 15 12th, 2014.
- 16 For closing submissions, the panel will
- 17 hear from counsel for PUB, CAC, and GAC commencing at
- 18 9:00 a.m. on Tuesday May 20th. Closing submissions
- 19 from counsel from MIPUG, MKO, and MFF will be heard
- 20 commencing at 9:00 a.m. May 21st, 2014. Closing
- 21 submissions from counsel for Manitoba Hydro will be
- 22 heard on May 26th, 2014.
- 23 The Board also recognizes that Manitoba
- 24 Hydro is still to file written responses to questions
- 25 that have been posed. And we appreciate the efforts of

- 1 Manitoba Hydro to provide those as soon as possible, as
- 2 parties may want to address them in their closing
- 3 arguments.
- 4 Should the Board have further questions
- 5 of any party, including Manitoba Hydro, those questions
- 6 will be advanced in writing with a request for
- 7 responses as quickly as possible. We appreciate the
- 8 best efforts of the parties, as we have throughout this
- 9 review.
- To remind parties, the Board will hear
- 11 from Whitfield Russell Associates on May 13, 2014. The
- 12 panel will also be hearing presentation in Thompson May
- 13 14, 2014. A transcript will be -- will be posted
- 14 following those presentations.
- So with that, I will turn the microphone
- 16 over to Manitoba Hydro. I just want to make sure I
- 17 pronounce your name properly. It's Mr. Regehr. Is
- 18 that the right way? So, Mr. Regehr, please, welcome to
- 19 these proceedings.
- 20 MR. BRAD REGEHR: Thank you. Thank
- 21 you, Mr. Chair. To -- to clarify, I am legal counsel
- 22 to York Factory First Nation, which is a partner in the
- 23 Keeyask hydro power limited partnership. And so I want
- 24 to thank the Board for allowing me to come here today
- 25 and do the cross-examination.

10465 I'm joined by my colleague, Ms. Uzma 1 Saeed, also from D'Arcy & Deacon, who will be assisting me today. 3 4 THE CHAIRPERSON: Thank you for that clarification. 6 MMF PANEL 1 - SOCIOECONOMIC AND MACROENVIRONMENTAL MATTERS Continued: 9 RICK HENDRIKS, Affirmed (Qual.) 10 11 CROSS-EXAMINATION BY MR. BRAD REGEHR: 12 MR. BRAD REGEHR: Mr. Hendriks, I'm 13 going to be asking you some questions. My questions will be exclusively in relation to your paper, 14 15 'Evaluating Macroenvironmental Impact'. I'm not going to be asking you any questions in relation to your 17 paper on -- on wind. Ms. Fernandes may or may not have 18 some questions for you once I'm done. 19 The first question I have for you, I just want to confirm you are aware that the Clean 21 Environment Commission has released the Keeyask 22 Generating Station report? 23 MR. RICK HENDRIKS: Yes, I am aware. 24 MR. BRAD REGEHR: And so you're -- you 25 also indicated that you have looked at portions of it,

- 1 but not the entire thing?
- 2 MR. RICK HENDRIKS: That's correct.
- MR. BRAD REGEHR: You are aware, then,
- 4 that the Clean Environment Commission has recommended
- 5 that a licence be granted for Keeyask?
- 6 MR. RICK HENDRIKS: I did not read that
- 7 in the report, but I have -- I have it second-hand,
- 8 yes. I did not read that -- that particular section of
- 9 the report.
- 10 MR. BRAD REGEHR: For the record, Mr.
- 11 Chair, I'd like to enter into evidence Manitoba Hydro
- 12 197 Exhibit, which is our book of documents, which has
- 13 been circulated already, and we have a second one,
- 14 Manitoba Hydro 198, which I believe has also been
- 15 circulated, as well.

16

17 --- EXHIBIT NO. MH-197: Book of documents

18

19 --- EXHIBIT NO. MH-198: Second book of documents

- 21 THE CHAIRPERSON: Mr. Regehr, the --
- 22 the larger document is one ninety-eight (198)?
- 23 MR. BRAD REGEHR: It's one ninety-seven
- 24 (197).
- THE CHAIRPERSON: Ninety-seven (97).

10467 MR. BRAD REGEHR: And the smaller 1 document is one ninety-eight (198). 3 CONTINUED BY MR. BRAD REGEHR: MR. BRAD REGEHR: I would ask that the 5 6 document at Tab 1 of Manitoba Hydro 197 be brought up. 7 (BRIEF PAUSE) 9 10 MR. BRAD REGEHR: There we have it. If 11 we could move to -- no, I don't. This is the --MS. JESSICA SAUNDERS: 12 Just -- Mr. 13 Regehr, would it be possible -- Jessica Saunders here, 14 my apologies for interrupting. 15 Would it be possible to get an extra copy, or do you have the book of documents there, Mr. 17 Hendriks? Just so he can follow along on hard copy. 18 Right here. 19 20 (BRIEF PAUSE) 21 22 MS. JESSICA SAUNDERS: We have a copy of -- of -- I just wanted to bring it to Mr. Hendriks's 24 attention that he has it in hard copy, as well. Thank 25 you.

- 1 CONTINUED BY MR. BRAD REGEHR:
- 2 MR. BRAD REGEHR: The -- the document
- 3 to which I'm directing you to is the foreword written
- 4 by the chair of the Clean Environment Commission, Mr.
- 5 Terry Sargent, as well as the licensing and non-
- 6 licensing recommendations in the report.
- 7 You haven't had a chance to redo the
- 8 foreword or the recommendations on this report?
- 9 MR. RICK HENDRIKS: No, I have not.
- 10 MR. BRAD REGEHR: I would direct you
- 11 to, I guess, page 2. In the actual document itself,
- 12 it's Roman numeral VI, but it's page 2 of our exhibit
- 13 list, and there's a paragraph, the third full paragraph
- 14 states:
- 15 "The environmental assessment was
- 16 better written. It was better
- organized, and its much improved
- 18 analysis led to conclusions that were
- 19 understandable, and for the more --
- 20 most part supportable."
- 21 Do you see that paragraph?
- MR. RICK HENDRIKS: Yes, I do.
- 23 MR. BRAD REGEHR: Now, you would agree
- 24 with me, then, from that statement, that it would
- 25 appear that the Clean Environment Commission was quite

PUB re NFAT 05-12-2014 10469 happy with the quality of information presented by the Proponent, in that case, the Keeyask Hydro Power Limited Partnership. 3 You -- you would agree with me on that statement? 6 MR. TONY MARQUES: I'm -- I'm sorry, but I think this witness is in no better position to answer that question than anybody else in this room. Who knows what the CEC was thinking, but certainly the document speaks for itself, so. I -- I'd just say I 10 11 think it's an unfair question to ask of this witness. 12 13 (BRIEF PAUSE) 14 15 MR. RICK HENDRIKS: I -- I'm prepared 16 to give a response, Mr. Chairman. The -- the comment here is relative. It says here: 17 18 "...was better written. It was 19 better organized, and its much 20 improved analysis..." 21 I don't have any reference point as to 22 better than what. 23 24 CONTINUED BY MR. BRAD REGEHR:

MR. BRAD REGEHR: Let's move to page 4

10470 of Tab Number 1, the first full paragraph states: 2 "In the end, the panel is more than satisfied that the record is 3 sufficiently complete for it to offer sound advice to the minister." 5 Would -- would that seem to be an 6 indication that the Clean Environment Commission was happy with the quality of the information? 9 MR. RICK HENDRIKS: Yes, that 10 particular paragraph does seem to indicate that. Yes. 11 MR. BRAD REGEHR: Thank you. On page 12 11 of your report, you provide your understanding for 13 how the term 'significance' should be defined, and I 14 believe you define significance as: 15 "Consideration of the following 16 criteria in relation to the 17 consequences of the changes: 18 a) Magnitude." 19 Well, I'm putting in 'A' because it's just bullet points. So the next one would be: 21 "Geographic extent, duration and 22 frequency, degree to which the 23 consequences of the changes are 24 reversible, irreversible, and 25 ecological context."

- 1 Now, that's the definition you're using
- 2 of significance that's un -- that's set out by the
- 3 Canadian Environmental Assessment Agency, correct?
- 4 MR. RICK HENDRIKS: Correct.
- 5 MR. BRAD REGEHR: Are you aware that
- 6 the Canadian Environmental Assessment Agency's draft
- 7 comprehensive study report on the Keeyask generation
- 8 project has been posted online since April 23rd, 2014,
- 9 and that it's currently in the public participation
- 10 process?
- MR. RICK HENDRIKS: Yes, I am.
- MR. BRAD REGEHR: And to my
- 13 understanding, and you can correct me if I'm wrong,
- 14 this would be the last phase before the report is sent
- 15 to the Minister of Environment for final decision?
- 16 MR. RICK HENDRIKS: That would depend
- 17 on whether this project was grandfathered into the 2012
- 18 -- under -- yeah, 2012. There's a slightly different
- 19 process, as I understand. So I -- I can't confirm
- 20 that, but assuming that process would be nearing its
- 21 end if they're consulting on the CSR.
- MR. BRAD REGEHR: Have you had a chance
- 23 to read the CSR?
- 24 MR. RICK HENDRIKS: I've looked only at
- 25 the agency conclusions, which I see are in front of me

10472 here. So I have read this -- this particular paragraph before. 3 MR. BRAD REGEHR: Could we bring up Tab 2 of Manitoba Hydro 197, please? If we go to page 9 of Tab Number 2, which is actually page 83 of the CSR, it 6 states: "The comprehensive study process gave 7 the Canadian public and Aboriginal 9 groups opportunity to participate in 10 improving the project during the 11 design phase and helped reduce the environmental effects of its 12 13 construction and operation. 14 As a result, the design, 15 construction, and operation of the 16 project are not based solely on 17 technical or economic criteria, but 18 also incorporate environmental 19 criteria that promote a balanced 20 approach to keeping with the 21 principles of sustainable 22 development. 23 The project design incorporated 24 precautionary approaches, 25 conservatism, and best management --

10473 1 management practices, e.g. avoidance, 2 to minimize the ecological footprint 3 of the project." Would you agree that that is a positive statement from the Canadian Environmental Assessment 6 Agency? 7 MR. RICK HENDRIKS: Yes, I would. MR. BRAD REGEHR: Now, as you indicated, you relied upon the Agency's understanding of the term 'significance'. 10 11 And are you aware that in the CSR, at page 84, they state that the Keeyask project is not 13 likely to cause significant adverse environmental 14 effects? 15 MR. RICK HENDRIKS: Yes, I am aware. 16 It appears on the third paragraph on page 84. 17 MR. BRAD REGEHR: Now, at page 14 of 18 your report, you indicated that the Clean Environment 19 Commission's report on Keeyask will be helpful and necessary for this Board, but you point out that this 21 report is about Keeyask and not other components of the 22 Preferred Development Plan. 23 Is that correct? 24 MR. RICK HENDRIKS: Yes. 25 MR. BRAD REGEHR: You are aware that

10474 the other components will also have to go through their own environmental regulatory reviews? 3 MR. RICK HENDRIKS: I'm aware that -that would be the usual practice under the current -current laws, yes. 6 MR. BRAD REGEHR: At page 15, you state 7 that: 8 "A problem that the Public Utilities 9 Board faces is that they cannot gauge 10 the macroenvironmental effects of the 11 Preferred Development Plan until each 12 component of the PDP has undergone an 13 environmental assessment that would 14 have to be done prior to the 15 completion of the Needs For and 16 Alternatives To." 17 Would you say that in your paper? 18 MR. RICK HENDRIKS: That -- that sounds 19 similar to what I would have written, yes. 20 MR. BRAD REGEHR: So what you're 21 saying, essentially, is that each component must go 22 through a complete environmental regulatory hearing, 23 and then presumably, those regulatory bodies would have 24 to issue their final reports before the Public 25 Utilities Board can make a decision on the NFAT?

10475 MR. RICK HENDRIKS: Yes. 1 2 MR. BRAD REGEHR: And you understand that environmental regulatory hearings like the Clean 3 Environment Commission are very detailed. They are not reviews of macroenvironmental or macroeconomic impacts, 6 right? They're -- they're detailed reviews? 7 MR. RICK HENDRIKS: Yes, they are detailed reviews. However, the information that's 10 gathered doesn't form macroenvironmental assessment. 11 MR. BRAD REGEHR: And you would agree 12 that environmental assessments and assessments on needs 13 and alternatives have different purposes? 14 MR. RICK HENDRIKS: I responded to that 15 in an IR indica -- I don't have the number of the IR 16 handy, but my response is -- is on the record. 17 18 (BRIEF PAUSE) 19 20 MR. BRAD REGEHR: So can you confirm 21 that's your...? 22 MR. RICK HENDRIKS: My recollection of 23 my response was that -- that the need and alternatives 24 analysis typically looks at the net benefits of the --

25 of the endeavour, whereas an environmental assessment

- 1 is looking more at the externalities.
- 2 However, I pointed out that in -- not in
- 3 all instances are those two (2) tasks neatly separated
- 4 as they are here in Manitoba. And I provided some
- 5 examples to the Board in which -- in which the
- 6 determination -- or the justification decision, if you
- 7 will, is undertaken with those two (2) pieces happening
- 8 separately and informing the justification decision, or
- 9 perhaps also happening together and informing the
- 10 justification decision.
- 11 The point I made in my response was that
- 12 the justification decision should not precede the
- 13 conclusions around significant adverse environmental
- 14 effects.
- MR. BRAD REGEHR: At page 22 of your
- 16 report, you state that you recognize that the NFAT
- 17 process is not intended to duplicate the CEC process.
- 18 Is that correct?
- 19 MR. RICK HENDRIKS: That is correct.
- 20 MR. BRAD REGEHR: I do note, and please
- 21 confirm with me, that you only reviewed portions of the
- 22 aquatic section from the Keeyask EIS and only the
- 23 historical overview portions of the three (3) Cree
- 24 Nation environmental evaluation reports.
- 25 Is that correct?

- 1 MR. RICK HENDRIKS: In preparing my
- 2 report, that's correct.
- 3 MR. BRAD REGEHR: And am I correct in
- 4 assuming that you obtained this information online at
- 5 the Keeyask Hydro Power Limited Partnership website?
- 6 MR. RICK HENDRIKS: Yes, that's
- 7 correct.
- 8 MR. BRAD REGEHR: And would you agree
- 9 with me that the entire environmental impact statement,
- 10 including the Cree Nation reports and the video and all
- 11 of the Information Requests, are available on this
- 12 website?
- MR. RICK HENDRIKS: Yes, they are
- 14 available.
- MR. BRAD REGEHR: And were you aware
- 16 that the Clean Environment Commission has recommended
- 17 that the website remain active and that all the
- 18 information on it remain available to the public?
- 19 MR. RICK HENDRIKS: No, I was not aware
- 20 of that.
- 21 MR. BRAD REGEHR: And am I correct in
- 22 that the website contains information available with
- 23 regard to Keeyask on physical environment?
- 24 Does the website contain information in
- 25 relation to the physical environment aspect of the EIS?

- 1 MR. RICK HENDRIKS: I would presume
- 2 that the entire EIS is there, yes.
- 3 MR. BRAD REGEHR: So also biophysical
- 4 environment, which includes both aquatic and
- 5 terrestrial --
- 6 MR. RICK HENDRIKS: Yes.
- 7 MR. BRAD REGEHR: -- and socioeconomic
- 8 that includes both the resource use and heritage?
- 9 MR. RICK HENDRIKS: Yes, those are the
- 10 usual portions of an environmental effects statement.
- MR. BRAD REGEHR: And also,
- 12 importantly, the Cree World View set out in Cree Nation
- 13 environmental valuations reports, that would be there?
- 14 MR. RICK HENDRIKS: Yes. And my
- 15 understanding is it's all filed at the same location.
- 16 MR. BRAD REGEHR: Were you aware the
- 17 environmental impact statement addressed issues related
- 18 to health, quiet enjoyment, and loss of place?
- 19 MR. RICK HENDRIKS: No, I was not.
- 20 MR. BRAD REGEHR: Would you agree with
- 21 me that the broad headings that I've just put to you
- 22 contain much more detailed information regarding the
- 23 fauna and flora, terrestrial species, effects of
- 24 mercury intactness, and socioeconomic impacts, and a
- 25 wide variety of other topics would be included in the

- 1 EIS?
- 2 MR. RICK HENDRIKS: Yes.
- 3 MR. BRAD REGEHR: But you chose not
- 4 review that information. Is that correct?
- 5 MR. RICK HENDRIKS: I wouldn't say that
- 6 it was a choice. There's only a certain amount of time
- 7 and resources available for us to participate in this
- 8 process. And I had to allocate my time as I felt was
- 9 appropriate.
- 10 MR. BRAD REGEHR: At page 21 of your
- 11 report, you state that your review indicates that the
- 12 EIS and environmental evaluations describe the adverse
- 13 nature of the effects of the prior development in very
- 14 general terms and provide overall perspectives on the
- 15 implications of these effects for use of the effected
- 16 lands and waters.
- 17 Is that correct?
- 18 MR. RICK HENDRIKS: That is correct.
- 19 However, that was in reference to the prior paragraphs
- 20 which deal with a particular -- which deal only -- only
- 21 with the particular sections in which I -- I looked at.
- 22 So it's in reference to the prior projects. So I
- 23 looked at only certain sections seeking information
- 24 with respect to the prior projects.
- 25 And the information that I located I've

- 1 described in my -- in my view how that information
- 2 describes the effects of the prior projects.
- MR. BRAD REGEHR: But you came to this
- 4 opinion, however, through your selective reading of a
- 5 limited portion of the environmental impact statement,
- 6 correct?
- 7 MR. RICK HENDRIKS: That's correct.
- 8 MR. BRAD REGEHR: And you didn't review
- 9 the terrestrial environment section of the EIS, did
- 10 you?
- MR. RICK HENDRIKS: No, I did not.
- MR. BRAD REGEHR: Well, I submit to you
- 13 that the terrestrial environment section provides
- 14 historical terrestrial losses due to Hydro and other
- 15 developments in the Keeyask region and that in the
- 16 reports in that section they document terrestrial
- 17 effects related to Kelsey, Kettle, Long Spruce, Notigi,
- 18 and Wuskwatim Lake.
- 19 Do you have any reason to dispute that
- 20 statement?
- 21 MR. RICK HENDRIKS: I don't have any
- 22 reason to dispute that statement, no.
- 23 MR. BRAD REGEHR: It's my understanding
- 24 that ecologists -- and I'm just a lawyer, so I don't
- 25 necessarily always understand these things, but they

10481 identify intactness, which is essentially the opposite of fragmentation, and total terrestrial habitat loss as key indicators for cumulative effects on terrestrial 3 ecosystems. 5 Would you agree that these are good overall indicators of cumulative effects on terrestrial 7 ecosystems? 8 9 (BRIEF PAUSE) 10 11 MR. RICK HENDRIKS: Could I ask you to 12 repeat the list again? 13 MR. BRAD REGEHR: Ecologists often identify intactness, which is essentially the opposite 14 15 of fragmentation and total terrestrial habitat loss as key indicators for cumulative effects on terrestrial 16 ecosystems? 17 18 19 (BRIEF PAUSE) 20 21 THE CHAIRPERSON: Mr. Regehr, have you got a reference for us to -- to read? You're quoting 22 23 from something, and I just want to make sure I've got 24 it in front of me. 25 MR. BRAD REGEHR: That's my question.

10482 I'm not -- not quoting from a... 2 3 (BRIEF PAUSE) CONTINUED BY MR. BRAD REGEHR: MR. BRAD REGEHR: Do you need me to re-6 7 ask you the question? 8 MR. RICK HENDRIKS: Yes, please. 9 MR. BRAD REGEHR: So would you agree that these are good overall indicators of commutative 10 11 effects on terrestrial ecosystems? 12 MR. RICK HENDRIKS: Yes, they are indicators of cumulative effects. 13 14 MR. BRAD REGEHR: Could we bring up Tab 15 3 from Manitoba Hydro 197, please? And so these are portions from the Keeyask EIS supporting volume on 17 terrestrial environment. And if we go to page 12, this 18 is Table 2-4 of the Keeyask, Terrestrial environment 19 supporting volume. 20 Were you aware that it quantifies total terrestrial habitat loss and alteration for an 21 approximately 14,200 square kilometre region 22 23 surrounding the Keeyask project? 24 Were you aware of that? 25 MR. RICK HENDRIKS: No, I was not.

10483 MR. BRAD REGEHR: And if we could move 1 forward to Tab 4, please. Tab 4 is Table 2-33 of the Keeyask terrestrial environment supporting volume, and 3 Tab 5. I'm not going to run you through all the individual numbers, but if we could bring up Tab 5, 6 please. 7 (BRIEF PAUSE) 9 10 MR. BRAD REGEHR: Tab 5 is the response 11 to Round 2 CEC-0102c. 12 Were you aware that these documents 13 provide detailed breakdowns of the composition of that historical habitat loss? 14 15 MR. RICK HENDRIKS: No, I was not. 16 MR. BRAD REGEHR: Were you aware that IR Round 2 CEC-0102c, which is Tab 5, which we're 17 18 looking at currently, actually has a specific website link to it out of all the IRs? 19 20 MS. JESSICA SAUNDERS: I'm going to 21 have to object, Mr. Chair. I question how much further 22 Manitoba Hydro will go on this line of questioning. I'm mindful of Mr. Hendriks's comments, as he first 24 started, that in his report he noted that as a 25 requirement as part of the PUB process, he was not to

- 1 duplicate any of the CEC proceedings.
- 2 And while he indicated he went the added
- 3 step to be informed of some matters that related to his
- 4 understanding of the definition as used by
- 5 the PUB in the NFAT, I think Mr. Hendriks went to
- 6 lengths today to indicate in his presentation the NFAT
- 7 information that he relied upon in -- in the
- 8 information that he did provide with respect to his
- 9 understanding of the definition as used by the PUB.
- 10 So I'm -- I'm just not sure how much
- 11 further in the exercise we will go, but I would ask
- 12 that we just bear that in mind. And I -- I do
- 13 appreciate that Mr. Hendriks is trying to do his best,
- 14 but that he was quite restrained in -- in what of the
- 15 CEC material that he could consider.
- MR. BRAD REGEHR: Mr. Chair, Mr.
- 17 Hendriks has made the statement earlier on, when I
- 18 indicated at page 21 of his report, that:
- 19 "The EIS and environmental
- 20 evaluations described the adverse
- 21 nature of the effects in very general
- 22 terms and provide overall
- 23 perspectives."
- 24 So I would like to explore that a little
- 25 bit further with him in terms of whether he can still

- 1 come to that conclusion, given the evidence that was
- 2 available to him to review.
- 3 THE CHAIRPERSON: Okay. I think we
- 4 should get to the point, though, if you don't mind.
- 5 MR. BRAD REGEHR: Duly noted.

6

7 (BRIEF PAUSE)

- 9 CONTINUED BY MR. BRAD REGEHR:
- MR. BRAD REGEHR: What we'll do, Mr.
- 11 Chair, is I will just simply direct you to Tab 6 and 7
- 12 of Manitoba Hy -- Hydro 197. We won't run through them
- 13 in any detail. They are Tables 2-21 and 2-22 from the
- 14 terrestrial effects supporting volume from the Keeyask
- 15 EIS, and that they quantify cumulative effects on
- 16 intactness. I won't use them to put questions
- 17 currently to the -- to the witness.
- But I'd just like to confirm that you
- 19 didn't look at those documents?
- 20 MR. RICK HENDRIKS: Sorry, you're
- 21 looking right now at Tab 6 and 7?
- MR. BRAD REGEHR: Yes. You've not seen
- 23 those documents before?
- MR. RICK HENDRIKS: No, I have not.
- MR. BRAD REGEHR: Thank you.

PUB re NFAT 05-12-2014 10486 THE CHAIRPERSON: Mr. Hendriks, the obv 1 -- I think the point being made here is that, you know, you -- you based your opinion on data that was largely unavailable to you. I'm sorry, let me rephrase that. You -- you based your decision -- your recommendation on information that was available to you at the time. Might -- might be different if you had examined this 7 report from the CEC. 9 Am I -- am I correct, or... 10 MR. RICK HENDRIKS: Yes, you are 11 correct. If I had had more time available I would have 12 reviewed more of the EIS, correct. THE CHAIRPERSON: Now, Mr. Regehr, is 13 14 that the point you wanted to make, or am I -- am I...

- MR. BRAD REGEHR: Perhaps one (1) more
- 16 question and I'll --
- 17 THE CHAIRPERSON: Okay.

- 19 CONTINUED BY MR. BRAD REGEHR:
- 20 MR. BRAD REGEHR: Would you agree with
- 21 me, Mr. Hendriks, that when providing an expert
- 22 opinion, it's prudent that you review all of the
- 23 material available to you, particularly stuff that's
- 24 readily available on line?
- 25 MS. JESSICA SAUNDERS: I'm just going

- 1 to caution in here again. I -- we did caution Mr.
- 2 Hendriks in writing his report of the requirement that
- 3 we not duplicate. And I will just mention again that we
- 4 appreciated to the extent to which he was able to go in
- 5 the aspects of his report where he did suggest certain
- 6 aspects of the CEC report that should be highlighted.
- 7 He did attempt to inform himself, but
- 8 mindful again of the requirement not to duplicate. I
- 9 would be careful in putting that he should have read
- 10 the entire Keeyask EIS prior to doing any
- 11 recommendation or type analysis in his NFAT report.
- MR. RICK HENDRIKS: Just to clarify on
- 13 that point, I did make that clear in my report that I
- 14 was not intending to duplicate, nor would I have the
- 15 time or resources to do so.

16

17 (BRIEF PAUSE)

- 19 CONTINUED BY MR. BRAD REGEHR:
- 20 MR. BRAD REGEHR: Then I just want to
- 21 put to you on page 22 of your report you state:
- 22 "The apparent lack of comprehensive
- 23 information concerning the residual
- 24 environmental effects of the existing
- 25 hydroelectric facilities is

	10488
1	unfortunate. This kind of
2	information would be very valuable in
3	characterizing the potential
4	consequences of the changes to the
5	environment resulting from future
6	hydroelectric developments on the
7	Nelson River, whether in relation to
8	the PDP, to the alternative plans, or
9	to some other future hydroelectric
10	development in the province."
11	You come to that conclusion in your
12	report?
13	MR. RICK HENDRIKS: Yes, note that I
14	said, "The apparent lack." I also clarified in my
15	presentation that these documents may be available at
16	other locations that I had not had time to search.
17	MR. BRAD REGEHR: And in but in
18	coming to that conclusion you as indicated, you did
19	not review or you selectively reviewed materials
20	from the Keeyask EIS, correct?
21	MR. RICK HENDRIKS: I selected the
22	the reviewed material from the Keeyask EIS, yes,
23	correct.
24	
25	(BRIEF PAUSE)

10489 1 MR. BRAD REGEHR: I'm going to jump ahead to talking a little bit about Aboriginal traditional knowledge. And I'm --3 THE CHAIRPERSON: Mr. Regehr, I just --I just want to clarify one (1) point here. The information that Mr. Regehr has referred to in his line of questioning obviously contained fairly detailed 7 information regarding the consequences of the Keeyask project. Is that what you had in mind when you talked about comprehensive information, or... 10 11 MR. RICK HENDRIKS: Let -- let's keep 12 in mind that I'm -- I'm referring here to information 13 about the prior projects. So the information I was 14 looking for in looking in the Keeyask EIS was not about 15 Keeyask. It was about the prior projects. 16 THE CHAIRPERSON: Okay, I get the 17 point. 18 19 CONTINUED BY MR. BRAD REGEHR: 20 MR. BRAD REGEHR: And were you -- well, 21 you're not going to be aware, because you didn't read 22 the terrestrial environment supporting volume. 23 24 (BRIEF PAUSE) 25

10490 1 MR. BRAD REGEHR: Now, let's take you back to an earlier part of your report on page 11, where you discuss your understanding of what 3 'macroenvironmental' means. And you bring up the definition that -- that was directed to the parties by the Public Utilities Board and in particular the word 'collective': 7 "A bringing together of the 9 consequences resulting from all 10 components of the PDP, or of the 11 alternative plans that maintains 12 their defining features." You would be aware that the Cree World 13 14 View believes in a holistic or collective approach, as 15 well? And you were aware that the four (4) partner 16 First Nations were heavily involved in the planning 17 process for the Keeyask Project? 18 MR. RICK HENDRIKS: Yes, I am aware. 19 MR. BRAD REGEHR: And that in terms of studying the impacts of a project on the environment, 21 having a local knowledge of the affected rivers and/or 22 having lived in the region for several years, like many 23 of the Cree partners and -- who were involved in 24 developing the EIS and the reports, that would be --25 that would be invaluable, wouldn't it, that knowledge?

PUB re NFAT 05-12-2014 10491 1 MR. RICK HENDRIKS: Yes, that would, 2 yes. 3 MR. BRAD REGEHR: And that would be invaluable, in terms of studying and determining the environmental effects of a project, correct? 6 MR. RICK HENDRIKS: Correct. 7 MR. BRAD REGEHR: And being involved in field studies over a period of ten (10) to twenty (20) years would also be inval -- invaluable, would it not? 10 MR. RICK HENDRIKS: Yes, it would be. 11 MR. BRAD REGEHR: Now, am I correct that you have not had an opportunity to actually carry 13 out an environmental impact assessment or cumulative 14 effects assessment on behalf of a proponent? 15 MR. RICK HENDRIKS: That is correct. 16 MR. BRAD REGEHR: And also am I correct

- 17 in understanding that you did not have an opportunity
- 18 to visit the Nelson River watershed region as part of
- 19 this report you did?
- 20 MR. RICK HENDRIKS: That's correct.
- 21 MR. BRAD REGEHR: Have you ever visited
- 22 the Nelson River watershed region?
- MR. RICK HENDRIKS: No, I have not.
- 24 MR. BRAD REGEHR: So you have not
- 25 studied the potential environmental impacts of the

- 1 proposed generation stations in the PDP firsthand, or
- 2 on the ground in the field.
- 3 Is that correct?
- 4 MR. RICK HENDRIKS: That's correct.
- 5 MR. BRAD REGEHR: And so clearly, the
- 6 Cree Nation environmental evaluation reports were
- 7 available to you, because you read certain selected
- 8 portions of them, but you didn't read them in their
- 9 entirety?
- 10 MR. RICK HENDRIKS: Since I wrote the
- 11 report I have read one (1) of them in its entirety,
- 12 yes, but not for writing the report, no.
- MR. BRAD REGEHR: Would you agree with
- 14 me that the inclusion of ATK and the Cree World View in
- 15 the development of the PDP does ensure that the
- 16 components of the PDP are assessed collectively?
- 17 MR. RICK HENDRIKS: Yes. In fact in
- 18 proposing that term, that was my intention.
- 19 MR. BRAD REGEHR: I would like to again
- 20 go back to the CEC's final report on Keeyask, and this
- 21 is Manitoba Hydro 198? I've already lost count.
- 22 And do you have that in front of you?
- 23 It's on the screen, but do you have a paper copy? If
- 24 not, do we have an extra paper copy available for Mr.
- 25 Hendriks?

10493 (BRIEF PAUSE) 1 2 3 MR. BRAD REGEHR: And the highlighted portion comes from page 59 of the Keeyask final report on -- from the CEC, and it's in relation to the -- how important and valuable the addition of ATK was to the 7 Keeyask Project. 8 And do you see the wording in front of 9 you in yellow? 10 MR. RICK HENDRIKS: Yes, I do. 11 MR. BRAD REGEHR: "The Commission found that the three 12 13 (3) KCN evaluations added greatly to an understanding of the Keeyask 14 15 Project and to the environmental, 16 historical, cultural, social, and 17 spiritual context of the project. Ιn 18 addition to documenting the 19 experiences and knowledges of the 20 members, the communities that will be 21 most affected by the project, these 22 three (3) reports provided a better 23 idea of how the KCNs came to their 24 decisions to participate in Keeyask 25 and how they put forward issues of

1	10494
1	great importance to them. They added
2	immeasurably to the ability of the
3	panel members to consider the
4	holistic nature of impacts to the
5	environment of the Lower Nelson
6	River.
7	The reports presented a range of
8	views regarding the project, pro and
9	con and mixed, and this helped the
10	panel to better understand the
11	relationship between hydroelectric
12	development and neighbouring
13	communities."
14	As well, at page 160, which is the next
15	page of that, a little bit further down in yellow, it
16	states on Aboriginal World Views:
17	"The Panel found the inclusion of
18	Cree World View and Aboriginal
19	technical knowledge, ATK, to be a
20	very positive and critical part of
21	the information, providing a context
22	for much of the scientific studies."
23	Do you agree with the Commission's
24	comments on the inclusion and value of ATK?
25	MR. RICK HENDRIKS: Yes, I do.

- 1 MR. BRAD REGEHR: Now, if I could take
- 2 you to page -- and I don't have very many questions
- 3 left for the witness -- slide 56 of your presentation
- 4 this morning, I just want to clarify something. In it,
- 5 you talk about the -- and I apologize if I mispronounce
- 6 it. Is it the Tshash Petapen?
- 7 MR. RICK HENDRIKS: Tshash Petapen,
- 8 yeah.
- 9 MR. BRAD REGEHR: Tshash Petapen
- 10 Agreement. And this is an agreement involving the Innu
- 11 in Labrador. Is that correct?
- MR. RICK HENDRIKS: Yes.
- MR. BRAD REGEHR: Actually, it's a
- 14 series of agreements. And the land claim AIP is a
- 15 comprehensive land claim settlement agreement --
- MR. RICK HENDRIKS: Yes.
- 17 MR. BRAD REGEHR: -- with the federal
- 18 government --
- 19 MR. RICK HENDRIKS: And the provincial
- 20 government.
- 21 MR. BRAD REGEHR: -- and the provincial
- 22 government, and that primarily came about as a result
- 23 of the fact that they didn't have a treaty with the
- 24 Crown?
- MR. RICK HENDRIKS: Excu -- excuse me,

- 1 I just wish to correct myself, actually. This
- 2 document, Tshash Petapen Agreement, only covers off the
- 3 provincial and Innu aspects of the -- of the
- 4 comprehensive claim. The federal government is not a
- 5 signatory to this Tshash Petapen Agreement.
- 6 MR. BRAD REGEHR: So the Tshash Petapen
- 7 Agreement and the land claim agreement are separate
- 8 agreements?
- 9 MR. RICK HENDRIKS: Yes. The Tshash
- 10 Petapen Agreement is agreement on principles that are
- 11 then carried forward into the other three (3)
- 12 agreements.
- MR. BRAD REGEHR: Okay. Now, the land
- 14 claim agreement's something with the federal government
- 15 and the provincial government, and --
- 16 MR. RICK HENDRIKS: Yes. Yeah.
- MR. BRAD REGEHR: And -- and it's
- 18 essentially what we would now call a modern day treaty.
- 19 Is that correct?
- 20 MR. RICK HENDRIKS: Yes, correct.
- 21 MR. BRAD REGEHR: And the Upper
- 22 Churchill Redress Agreement, this deals with the
- 23 impacts from the -- the Churchill Falls development.
- 24 Is that correct?
- MR. RICK HENDRIKS: Correct.

10497 1 MR. BRAD REGEHR: And the Innu were -they were left out of that? 3 MR. RICK HENDRIKS: They were, yes. 4 MR. BRAD REGEHR: Is -- is that fair to 5 say? 6 MR. RICK HENDRIKS: Yes. 7 MR. BRAD REGEHR: And then the Lower Churchill IBA, that deals with the proposed development -- further -- further development. Is that correct? 10 MR. RICK HENDRIKS: Correct. 11 MR. BRAD REGEHR: And you said this 12 morning that the -- the Upper Churchill Redress 13 Agreement, the benefits in that are not contingent upon 14 the Lower Churchill Project proceeding? 15 MR. RICK HENDRIKS: Yes, I did say 16 that. 17 MR. BRAD REGEHR: That in slide 57. 18 Can I ask why you made that state -- that particular 19 statement, as why it was relevant? 20 MR. RICK HENDRIKS: Yes. It was 21 relevant because, at this point -- at this juncture, 22 the Board here is considering options for whether or 23 not it should proceed with the PDP, and there's several 24 options that are available to you. One (1) -- one (1) 25 of those includes not proceeding. You could make a

- 1 recommendation, is my understanding, to not proceed
- 2 with any of the -- not proceed with the PDP, but not
- 3 make a recommendation as to what to do next.
- So Plan 17, for example, which is put
- 5 forward by La Capra, and any other variance that
- 6 involve a delay would delay benefits, as I understand,
- 7 to the KCNs under the JKDA.
- 8 And so my reading of the JKDA, and I
- 9 stand to be corrected, is that both the benefits
- 10 associated with Keeyask, moving forward with Keeyask,
- 11 as well as these operational jobs which could be
- 12 anywhere in the province as I understand, of Hydro's
- 13 facilities, and appear to me to be related to -- or to
- 14 be an attempt to improve upon the benefits of prior
- 15 arrangements.
- 16 And so in my experience, separating
- 17 those two (2) things can be valuable in the event that
- 18 a decision maker decides not to proceed with the new
- 19 project. Then the benefits of the prior -- that are
- 20 hooked up with the prior projects still go ahead. So
- 21 in other words, the affected communities -- the eggs
- 22 are not all in one (1) basket, so to speak.
- 23 MR. BRAD REGEHR: But the Upper
- 24 Churchill Redress Agreement deals with something that
- 25 happened in the 1960s and '70s, correct? A project

- 1 that happened some time ago?
- 2 MR. RICK HENDRIKS: The effects of the
- 3 Upper Churchill are ongoing.
- 4 MR. BRAD REGEHR: Sure, they're
- 5 ongoing, but it -- it deals with that particular
- 6 Churchill Falls project, correct?
- 7 MR. RICK HENDRIKS: It does. Correct.
- 8 MR. BRAD REGEHR: And Lower Churchill
- 9 deals with a different project?
- 10 MR. RICK HENDRIKS: Correct.
- 11 MR. BRAD REGEHR: And so are you -- are
- 12 you familiar with the history of Cree Nation
- 13 involvement and Manitoba Hydro on the Nelson River in
- 14 Manitoba?
- MR. RICK HENDRIKS: I would say that
- 16 I'm generally familiar, yes.
- MR. BRAD REGEHR: So you'd be aware of
- 18 the 1977 Northern Flood Agreement?
- 19 MR. RICK HENDRIKS: Yes, and the
- 20 implementation agreements that followed from that.
- 21 MR. BRAD REGEHR: And you would
- 22 understand that these agreements stand on their own,
- 23 that they're not contingent upon the JKDA, they're not
- 24 contingent upon the Keeyask project being built?
- Is that what you're suggesting here,

- 1 that -- that somehow the JKDA would impact those
- 2 implementation agreements?
- MR. RICK HENDRIKS: No, that's not what
- 4 I'm suggesting. What I'm suggesting here is that those
- 5 operational jobs which are occurring at other projects
- 6 other than the -- the Keeyask project do seem to be
- 7 contingent on the JKDA going forward, or on the Keeyask
- 8 project going forward.
- 9 MR. BRAD REGEHR: But you're not
- 10 coming, then, to the conclusion which -- which you seem
- 11 to indicate -- well, I'll -- I'll correct that.
- Then you're not indicating to me that
- 13 you think that somehow, the Keeyask project will impact
- 14 those rights and benefits that the Cree Nations have
- 15 under their other agreements?
- 16 MR. RICK HENDRIKS: No, I'm not
- 17 suggesting that they -- that the JKDA has an effect on
- 18 the prior agreements. No, I'm not suggesting that.
- 19 MR. BRAD REGEHR: So in -- in fact, it
- 20 would seem that just like the Innu in Labrador who have
- 21 certain rights and benefits under the Upper Churchill
- 22 Redress Agreement, the Cree in Northern Manitoba have
- 23 rights and benefits under their agreements which will
- 24 not be affected --
- MR. RICK HENDRIKS: Correct.

10501 1 MR. BRAD REGEHR: -- whether or not Keeyask goes forward? 3 MR. RICK HENDRIKS: Correct. 5 (BRIEF PAUSE) 6 7 MR. BRAD REGEHR: Thank you, Mr. Chair. Those are all my questions. 9 THE CHAIRPERSON: Thank you, Mr. 10 Regehr. 11 12 (BRIEF PAUSE) 13 14 THE CHAIRPERSON: Ms. Fernandes, 15 please. 16 MS. ODETTE FERNANDES: Thank you, Mr. 17 Chairman. I was actually going to say as a result of 18 the questions posed this morning and Ms. Saunders 19 filing a -- refiling the response to MH/MMF-26a with respect to the capital costs of wind projects from BC 21 Hydro's 2013 IRP, I don't have any further questions. 22 THE CHAIRPERSON: Thank you, Ms. 23 Fernandes. Mr. Hombach, please. 24 MR. SVEN HOMBACH: Thank you, Mr. 25 Chairman, and good afternoon, Mr. Hendriks.

10502 (BRIEF PAUSE) 1 2 3 MR. SVEN HOMBACH: There's been repeated reference now to the Clean Environment Commission report with respect to Keeyask, and several parties have prepared books of documents that have excerpts of it. I'm going to make everybody's life 7 easier and I will ask that the entire report is going to be made an exhibit on the record. I suggest that that go in as a PUB exhibit, and I believe that would 10 11 be PUB Exhibit 69. 12 13 --- EXHIBIT NO. PUB-69: Clean Environment 14 Commission report with 15 respect to Keeyask 16 17 (BRIEF PAUSE) 18 19 MR. KURT SIMONSEN: That's correct. 20 Thanks. 21 22 CROSS-EXAMINATION BY MR. SVEN HOMBACH: 23 MR. SVEN HOMBACH: I was struck by one 24 (1) of the comments you made this morning, Mr. Hendriks, that if there are significant effects for

10503 Keeyask, there likely would be significant effects for Conawapa as well. 3 And first of all, did I understand it correctly that that's what you were saying? 5 6 (BRIEF PAUSE) If I recall the MR. RICK HENDRIKS: context of that comment, it was in relation to a question that had been posed by MMF legal counsel to 10 MNP, the independent expert to the Board, in which the 11 12 MNP was asked if there were significant adverse 13 environmental effects at Keeyask, would that mean that 14 there would be significant adverse environmental 15 effects at Conawapa? 16 Or if there weren't significant adverse environmental effects at Keeyask, would that mean there 17 18 weren't significant adverse environmental effects at 19 Conawapa? And the -- the response from MNP was, Yes, and I said that I agreed with that, but with some caveats, and I indicated those caveats this morning. 21 22 To -- to repeat them, if I recall them 23 correctly, one (1) was that the cumulative effects 24 framework that's been recommended by the CEC could provide further information that would alter

10504 presumption that a conclusion about Keeyask could be applied to Conawapa. 3 Secondly, that the environment is still changing, so the environment at Conawapa is still evolving. I would expect that that would be the case based on my experience in other jurisdictions. 7 (BRIEF PAUSE) 9 10 MR. RICK HENDRIKS: Oh, and my final point, which is that Keeyask's EIS is predictive 11 12 information. 13 MR. SVEN HOMBACH: Based on the 14 information that you've actually reviewed to date 15 yourself, do you see any significant or substantial 16 differences between Keeyask and Conawapa so that one 17 (1), in fact, that you would expect for Keeyask you 18 wouldn't expect for Conawapa, or vice versa? 19 MR. RICK HENDRIKS: Yes, I would say the primary difference between the two (2) facilities, from the information I have available to me from the 21 22 NFAT, is that Conawapa essentially does not have any 23 flooding. I mean, it -- the flooding -- the inundation 24 from Conawapa is -- is quite modest compared to that 25 from Keeyask. So I would consider that to be a -- a

- 1 substantial difference between the two (2) projects.
- MR. SVEN HOMBACH: Are you able to say
- 3 whether you'd anticipate any differences with respect
- 4 to the impact on sturgeon that this panel has heard a
- 5 lot about with respect to Keeyask?
- 6 MR. RICK HENDRIKS: No, I would not.
- 7 MR. SVEN HOMBACH: You're aware that
- 8 the Clean Environment Commission indicated in its
- 9 report that a regional cumulative asses -- effects
- 10 assessment is currently underway, but not yet ready?
- MR. RICK HENDRIKS: Excuse me,
- 12 currently underway, but not?
- MR. SVEN HOMBACH: But not yet
- 14 complete, not yet -- not yet ready?
- MR. RICK HENDRIKS: Yes, that's my
- 16 understanding.
- 17 MR. SVEN HOMBACH: And that is expected
- 18 in 2015?
- 19 MR. RICK HENDRIKS: Yes, that's the
- 20 date I've been told.
- MR. SVEN HOMBACH: To make sure that
- 22 we're getting our terminology straight, a cumulative
- 23 effects assessment does not look at each project on an
- 24 incremental basis, but it looks at the total effects of
- 25 the new proposed projects and those that came before

1 it?

- 2 MR. RICK HENDRIKS: Correct. It
- 3 operates from a baseline earlier -- a -- a temporal
- 4 baseline that would capture the changes prior to all of
- 5 the developments in question.
- 6 MR. SVEN HOMBACH: So essentially, the
- $7\,$ -- the baseline for a cumulative assessment would be a
- 8 pristine environment, and the baseline for a non-
- 9 cumulative environment would be the environment as it
- 10 currently exists, without adding on more projects --
- MR. RICK HENDRIKS: Yes, more or less,
- 12 that's the case. I mean, in some instances, we can't -
- 13 in recreating the baseline from the past, we have to
- 14 -- we have to work with the available information, and
- 15 so that information is often coming from a certain
- 16 period of time, and so it may not be -- have been a
- 17 quote/unquote "pristine environment" at that time.

18

19 (BRIEF PAUSE)

- 21 MR. SVEN HOMBACH: You also commented
- 22 on the need to understand the residual effects today,
- 23 and appreciating your earlier comment that you haven't
- 24 had an opportunity to read the report in detail, does
- 25 the CEC report address any of those concerns at all?

- 1 MR. RICK HENDRIKS: My answer to that
- 2 is yes. I mean, conceptually, my understanding was
- 3 that the -- the CEC report and the -- and the
- 4 assessment was to inform the Board indirectly. I mean,
- 5 they weren't doing it for the Board, but my
- 6 understanding of this process was -- was that the CEC
- 7 report was going to be an input, if you will, of
- 8 knowledge available to the Board in its -- its
- 9 determinations with respect to the NFAT.
- 10 MR. SVEN HOMBACH: You're familiar with
- 11 the term VECs, or valued ecosystem components?
- 12 MR. RICK HENDRIKS: Yes, I am.
- 13 MR. SVEN HOMBACH: Okay. When Manitoba
- 14 Hydro's panel was cross-examined earlier in the hearing
- 15 process, I put the question to Manitoba Hydro as to
- 16 what it thought the top three (3) VECs would be of
- 17 concern. And the response that came was sturgeon,
- 18 public safety, and caribou. Do you agree with that
- 19 assessment?
- 20 And first of all, is that something that
- 21 you have considered, or am I taking you beyond the
- 22 scope of your retainer now?
- 23 MR. RICK HENDRIKS: In answering this
- 24 question, I'm -- you know, I'm generally familiar with
- 25 the environment in -- in the area of the project. But

- 1 in answering this question I would be relying to some
- 2 extent on my knowledge -- my general knowledge of
- 3 hydroelectric projects in other locations.
- 4 So in that sense, I would expect that
- 5 fisheries and fish would be a key VEC for a large-scale
- 6 hydroelectric project. I would expect that terrestrial
- 7 animals would be a key VEC as well. I'm not sure that
- 8 I would put public safety as one of the top three (3).
- 9 I would -- I would be tempted to more -- to put a VEC
- 10 related to the affected communities as -- as a primary
- 11 VEC, depending on -- on the -- the circumstances in the
- 12 community as to what that VEC might be.
- MR. SVEN HOMBACH: To follow up on that
- 14 point, this morning the Chairman asked you on what you
- 15 would add to the definition of 'macroenvironmental',
- 16 and you stated that it should include community health
- 17 when you're dealing with Aboriginal groups.
- 18 And my understanding is that public
- 19 safety would -- would involve those issues of community
- 20 health?
- 21 MR. RICK HENDRIKS: Okay. That would
- 22 not be my understanding. When I -- having worked with
- 23 a fair number of large utilities across Canada, public
- 24 safety -- the term 'safety' has a very -- it has a
- 25 particular -- I wouldn't necessarily put community

10509 health under the umbrella of public safety. If that -if they're intending that that is the case, then I -then I would support community health being on the top 3 three (3). 5 MR. SVEN HOMBACH: What's your 6 understanding of the term? 7 MR. RICK HENDRIKS: My understanding is that -- that it relates more to physical safety; so rather than emotional or psychosocial safety or safety of the relationships between families and -- and 10 11 communities. I -- I wouldn't put that under the 12 umbrella of public safety. 13 MR. SVEN HOMBACH: You also commented 14 this morning about the challenge in monetizing some 15 aspects under the multiple account benefit-cost 16 analysis framework, and how that should actually impact the decision making. And you indicated the -- the 17 18 challenge in weighing those issues. 19 Do you have any guidance to the panel on how it should compare certain environmental impacts 21 under benefit costs to others, and stack those projects 22 against each other? 23 24 (BRIEF PAUSE)

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- 1 MR. RICK HENDRIKS: In terms of the --
- 2 the monetized items that are on Hydro's multiple
- 3 accounts benefit-cost analysis, I don't -- I don't take
- 4 issue with the monetization that's happened. And so
- 5 what we would have at that point would be monetized
- 6 values for each of the plans. And then we'd be left
- 7 with the non-monetizable items, and the question
- 8 becomes then how to compare those. I understand that
- 9 that's -- that's the nature of your question.
- 10 The way that Dr. Schaffer describes it,
- 11 and it's my understanding of how he describes it, is
- 12 that the key issue here is one of critical -- what he
- 13 calls critical value. So let's say for example that
- 14 we're able to monetize we have -- we have plan -- I'm
- 15 -- I'm not going to use numbers that are in the plan
- 16 list.
- So we have Plan 20 and Plan 21. And if
- 18 Plan 21 costs, say, \$1 billion more than Plan 20 on the
- 19 monetized values, and in terms of the non-monetizable
- 20 values -- so Plan 20 is cheaper. And -- but there are
- 21 some non -- non-monetized consequences, as he refers to
- 22 them.
- 23 The difference between the monetized
- 24 values, you will have to make a judgment. You will
- 25 have to say, It's my understanding from Mr. Schaffer's

- 1 work, and I would support that. At some point, you
- 2 have to make a judgment about whether or not the -- the
- 3 non-monetized consequence associated with the cheaper
- 4 alternative takes it above the more expensive
- 5 alternative.
- 6 And so that -- that would be my advice,
- 7 is -- is to try to -- is to try to -- to take it to
- 8 that point where you're clearly understanding what
- 9 exactly is -- what is being traded off here.
- 10 MR. SVEN HOMBACH: So you're saying
- 11 it's entirely subjective?
- MR. RICK HENDRIKS: I'm not saying it's
- 13 entirely subjective.
- 14
- 15 (BRIEF PAUSE)
- 16
- 17 MR. RICK HENDRIKS: In making a
- 18 decision about justification, we have to weigh these
- 19 things. We have to weigh the tradeoffs that -- that
- 20 we're left with here, and so there is a subjectivity to
- 21 that. I think the objective part comes in, in dealing
- 22 with the monetized. And then we're -- we're left with
- 23 a -- with a residual that has to be, to some extent,
- 24 subjective.
- 25 Again, you have advice here in terms of

- 1 the -- the guidance that's been given in the terms of
- 2 references, what are the -- the principles that are to
- 3 guide that decision. Those have been clearly outlined
- 4 in the terms of reference.
- I wish I could provide you perhaps more
- 6 of what you're asking for.
- 7 MR. SVEN HOMBACH: With that, let's
- 8 move on to the subject of resource planning. You spoke
- 9 about Quebec this morning.
- 10 And you indicated that there's currently
- 11 a substantial surplus?
- MR. RICK HENDRIKS: Yes.
- MR. SVEN HOMBACH: Now, presumably,
- 14 when the most recent generation facilities were planned
- 15 in Quebec, Quebec did not budget to have a large
- 16 surplus, or did it?
- 17 MR. RICK HENDRIKS: Hydro-Quebec
- 18 production does always maintain -- all utilities
- 19 maintains somewhat of a surplus. But, no, my
- 20 understanding is that they did not plan to have a
- 21 surplus, no.
- MR. SVEN HOMBACH: Do you have an
- 23 understanding of what changed between the time the most
- 24 recent Quebec dam was planned and it was actually
- 25 placed in service?

- 1 MR. RICK HENDRIKS: Yes, I have a
- 2 general understanding. The --
- 3 MR. SVEN HOMBACH: Can you provide a
- 4 brief description?
- 5 MR. RICK HENDRIKS: There was a change
- 6 in the economy which lowered the amount of consumption
- 7 of electricity. There was also a change in the -- in
- 8 the markets as a result of new technologies. So
- 9 natural gas became available in a much cheaper form as
- 10 a result of hydraulic fracturing. And so prices on the
- 11 markets went down considerably and created, if you
- 12 will, a surplus on the -- on the export markets that
- 13 Hydro-Quebec would normally export into.
- 14 So there were -- there were changes that
- 15 -- that led to the -- those were -- those are two (2)
- 16 that led to the situation that they're now in, yes.
- MR. SVEN HOMBACH: Let's go to page 51
- 18 of your presentation from this morning for a moment.
- 19 The Romaine hydroelectric complex that you mention on
- 20 page 51, is that the most recent dam that was
- 21 constructed in Quebec? Oh, and the slide is in front
- 22 of you.
- 23 MR. RICK HENDRIKS: Thank you. Yes,
- 24 that is the Romaine hydroelectric project complex on
- 25 the Romaine River in Quebec, yes.

10514 1 MR. SVEN HOMBACH: Do you recall when that was actually planned and when that went through the regulatory approval process? 3 4 5 (BRIEF PAUSE) 6 MR. RICK HENDRIKS: I would want to say 7 2004, but I'm not certain. 9 MR. SVEN HOMBACH: So the lead time is approximately ten (10) years in that case? 10 11 MR. RICK HENDRIKS: Yeah, I would -- I wouldn't want to conjecture it. To be honest with you, I don't know. 13 14 MR. SVEN HOMBACH: Perhaps I can ask 15 you by way of undertaking to advise when the Romaine 16 hydroelectric complex went through the permitting 17 process. 18 MS. JESSICA SAUNDERS: Yes, that is 19 acceptable. And for the court reporter, did you want 20 that confirmed? 21 MR. SVEN HOMBACH: I'm seeking an undertaking for the witness to advise when the Romaine 22 23 hydroelectric complex in Quebec went through the 24 approvals and permitting process. 25 MR. RICK HENDRIKS: Just to clarify,

10515 that would be the date from which -- normally the -the process would be triggered by a submission from the Proponent to the regulator. So that would be the start 3 date. 5 Do we agree on that? 6 MR. SVEN HOMBACH: Yes, sir. MR. RICK HENDRIKS: Okay. 9 --- UNDERTAKING NO. 146: MMF panel to advise when 10 the Romaine hydroelectric 11 complex in Quebec went 12 through the approvals and 13 permitting process 14 CONTINUED BY MR. SVEN HOMBACH: 15 16 MR. SVEN HOMBACH: Let's go to page 59 17 of your slides. In the second bullet this morning, you 18 indicated that as appropriate, indicate any changes to 19 the Preferred Development Plan that would be inconsistent with the findings of the PUB. 21 Are you suggesting, sir, that the Public Utilities Board should anticipate potential changes to 22 23 the Preferred Development Plan that Manitoba Hydro 24 might want to implement after the completion of this hearing, or what are you suggesting?

- 1 MR. RICK HENDRIKS: I'm suggesting that
- 2 it's often the case that circumstances change, so the
- 3 Quebec surplus as an example. So circumstances can
- 4 change considerably, such that a Proponent would
- 5 proceed with something different than what it had
- 6 originally intended.
- 7 MR. SVEN HOMBACH: Okay. Let's move
- 8 on, then, to the subject of wind.
- 9 Have you actually been involved in the
- 10 development or regulatory guidance with respect to wind
- 11 farms? Or was your information this morning based
- 12 primarily on your literature review?
- 13 MR. RICK HENDRIKS: The information was
- 14 primarily based on my literature review, as well as
- 15 comparative analyses that I had reviewed and -- and
- 16 undertaken in the past on hydroelectric projects.
- 17 MR. SVEN HOMBACH: Are you aware that
- 18 the provincial strategy in this province is to develop
- 19 up to a thousand megawatts of economic wind? And I'm
- 20 stressing the word 'economic'.
- 21 MR. RICK HENDRIKS: Yes, I am aware of
- 22 that. Actually, that was a slide in my presentation
- 23 that I removed last night to shorten it.
- 24 MR. SVEN HOMBACH: How would you define
- 25 economic wind in that context?

- 1 MR. RICK HENDRIKS: In response to an
- 2 IR from Man -- Manitoba Hydro, I was asked the
- 3 question, I believe, if -- if I've got it right, Was I
- 4 aware of any examples where wind had been -- come onto
- 5 the system and it was not -- not pursuant to a
- 6 government subsidy, I believe was the -- the phrase
- 7 they used.
- 8 And so to my mind, wind that's economic
- 9 is wind that's part of a -- of a portfolio of resources
- 10 that meets the needs of the utility. So what that --
- 11 in that sense, I'm assuming that there would be an
- 12 integrated resource planning process of some sort that
- 13 is going to select different supply and demand-side
- 14 options to meet the need for capacity and energy.
- And so a wind project in a certain
- 16 portfolio might have a -- its unit energy cost might be
- 17 higher, for example, than other resources, but it might
- 18 be more modular. It might fit more well with the needs
- 19 of the utility, and that was the example that I gave in
- 20 the case of BC.
- So for example, there, there's a large
- 22 hydroelectric project proposed, and that project is
- 23 Site C, and Site C creates a surplus. So even though
- 24 Site C has a lower unit energy cost, because of the
- 25 surplus which has to be sold on the export markets at a

- 1 considerably lower price than the marginal cost of
- 2 production, if you compare that to a -- another
- 3 resource plan that also fulfills the need that contains
- 4 wind projects, some of those wind projects might
- 5 actually have a higher unit energy cost than Site C
- 6 because they fit the need better. They avoid the
- 7 expensive surplus and allow you to step up supply with
- 8 demand.
- 9 And so to answer your question, I would
- 10 -- I would say that what I said earlier, which is that
- 11 it's economic if it's the least cost -- it's part of a
- 12 least cost portfolio for meeting the -- you know, the
- 13 energy and -- and capacity requirements.
- 14 MR. SVEN HOMBACH: Are you concerned
- 15 about the competition between different jurisdictions
- 16 in attracting winds, and one (1) province being able to
- 17 compete with another province or another jurisdiction
- 18 that might offer a higher price or a larger subsidy?
- 19 MR. RICK HENDRIKS: Sorry, competition
- 20 in what sense?
- 21 MR. SVEN HOMBACH: Let's -- let me get
- 22 back to that point. If we could put the IR response
- 23 from this morning back up on screen? It's Manitoba
- 24 Hydro/MMF IR response 25b, page 7.
- 25 You provided a chart that lists wind

- 1 projects in several different provinces, and I
- 2 appreciate, sir, that this does not include wind within
- 3 MISO. It's my understanding that the province of
- 4 Ontario does not use an RFP process for wind. It uses
- 5 the FIT process, the feed-in tariff regime.
- 6 Are you familiar with that?
- 7 MR. RICK HENDRIKS: Yes, I am familiar
- 8 with FIT.
- 9 MR. SVEN HOMBACH: And when FIT first
- 10 came online, the program would permit twenty (20) year
- 11 power purchase agreement at a per kilowatt hour cost --
- 12 or price of thirteen and a half (13 1/2) cents?
- MR. RICK HENDRIKS: That --
- 14 MR. SVEN HOMBACH: Will you take that
- 15 subject to check?
- 16 MR. RICK HENDRIKS: I would have --
- 17 actually have to agree with that. I'm not aware that
- 18 the -- the feed-in tariff price for wind has ever been
- 19 that high. Feed-in tariff price for wind is typically
- 20 around eleven (11) to fourteen (14) cents.
- 21 MR. SVEN HOMBACH: Will you accept,
- 22 subject to check, that currently it's eleven and a half
- 23 (11 1/2) cents per kilowatt hour?
- 24 MR. RICK HENDRIKS: Yes, I will --
- 25 subject to check, I would agree with that amount, yes.

- 1 MR. SVEN HOMBACH: And you testified
- 2 this morning about the Aboriginal revenue and
- 3 Aboriginal participation.
- 4 You're familiar with the Aboriginal
- 5 price at or under that tariff?
- 6 MR. RICK HENDRIKS: Yes, I am. I spoke
- 7 about it in my report.
- 8 MR. SVEN HOMBACH: Yeah. And that's
- 9 currently up to one and a half $(1 \ 1/2)$ cents, depending
- 10 on the equity stake?
- MR. RICK HENDRIKS: Yeah, it depends on
- 12 the -- on the share -- or involvement of the -- of the
- 13 Aboriginal group in the project. Yes, that's correct.
- 14 MR. SVEN HOMBACH: So that means with
- 15 maximum Aboriginal equity stake, Ontario's currently
- 16 offering to pay thirteen (13) cents per kilowatt hour
- 17 for wind?
- 18 MR. RICK HENDRIKS: Subject to check,
- 19 yes.
- 20 MR. SVEN HOMBACH: Are you aware what
- 21 type of system Quebec uses?
- MR. RICK HENDRIKS: Quebec uses an RFP
- 23 system, as far as I know. They had a -- their last
- 24 call, I believe, subject to check, was in 2010.
- MR. SVEN HOMBACH: And are you aware as

develop wind?

10521 to what price is being offered in Quebec for new wind farm installations? 3 MR. RICK HENDRIKS: I am not aware. MR. SVEN HOMBACH: Okay. 5 THE CHAIRPERSON: I wonder if we could pause here and recess for about ten (10) minutes. So 7 we'll just recess and -- and resume after that. 8 9 --- Upon recessing at 2:12 p.m. --- Upon resuming at 2:28 p.m. 10 11 12 THE CHAIRPERSON: I believe we are in a 13 position to resume the proceedings. Mr. Hombach, 14 please. 15 CONTINUED BY MR. SVEN HOMBACH: 16 17 MR. SVEN HOMBACH: Mr. Hendriks, before 18 the break you and I were discussing wind developments 19 in different jurisdictions and the commercial frameworks that are in place for those. I'm wondering if we could put the IR response back up on screen? 21 22 I didn't have an opportunity to ask you about British Columbia. Are you familiar with what 24 type of commercial framework British Columbia uses to

- 1 MR. RICK HENDRIKS: Yes, I am. They
- 2 use an RFP process as well. So they have cull, what
- 3 they call a cull for power.
- 4 MR. SVEN HOMBACH: And are you aware
- 5 what price per kilowatt hour is being offered under
- 6 those RFPs?
- 7 MR. RICK HENDRIKS: They don't -- my
- 8 understanding, in the past anyways, they have not
- 9 offered a particular price. What they say is that
- 10 there is a block of power that they are seeking. And
- 11 then they select the -- from the responses, the
- 12 proposals that come in to the request for proposals,
- 13 and they rank them. They're ranking them in terms of
- 14 cost. They're ranking them in terms of deliverability,
- 15 confidence that the contractor can actually deliver the
- 16 product, and other criteria.
- 17 So they -- they have a ranking system is
- 18 my understanding.
- 19 MR. SVEN HOMBACH: So it's essentially
- 20 a lowest cost type of regime? A low bidder?
- 21 MR. RICK HENDRIKS: Low bidder. There
- 22 are other considerations as well; as I said,
- 23 deliverability and there -- there would be other things
- 24 as well.
- MR. SVEN HOMBACH: And is that the case

- 1 in Quebec as well, or are you not familiar with how --
- 2 how wind is priced in that jurisdiction?
- 3 MR. RICK HENDRIKS: I'm not sure
- 4 whether in Quebec they go with a block, or whether they
- 5 -- a block of power and -- and let the prices fall
- 6 where they may, like BC, or whether they are providing
- 7 a price threshold and saying, Anyone who gets under
- 8 that threshold is in and anyone who can't is out. So
- 9 I'm not familiar which of those two (2) they would
- 10 have. I would suspect it would be one (1) or the
- 11 other.
- 12 MR. SVEN HOMBACH: So when we look at
- 13 the Aboriginal revenue and Aboriginal participation, it
- 14 appears from your chart that it's highest in Ontario,
- 15 which has the Aboriginal price adder.
- 16 Are you familiar with whether any of the
- 17 other Canadian jurisdictions have a similar system in
- 18 place where there's additional benefits if there's
- 19 Aboriginal ownership of wind projects?
- 20 MR. RICK HENDRIKS: To the best of my
- 21 knowledge, neither -- none of the other provinces have
- 22 -- let me clarify that. They don't -- BC does --
- 23 definitely does not have a price adder that I'm -- that
- 24 I'm aware of. Quebec actually did issue a special
- 25 request for proposals from community and Aboriginal

- 1 groups.
- 2 Whether they paid a higher price than
- 3 they did in their general request for proposals, I'm
- 4 not certain, but they did have a separate request for
- 5 proposals. I am aware of that.
- 6 MR. SVEN HOMBACH: This morning you
- 7 also spoke about wind agreements with municipalities.
- 8 And you commented that those agreements might have to
- 9 become more lucrative for other municipalities in the
- 10 future.
- 11 Can you offer some specific examples on
- 12 what incentives or deal sweeteners municipalities are
- 13 now being offered?
- 14 MR. RICK HENDRIKS: Sorry, are -- are
- 15 now being offered? Is that --
- 16 MR. SVEN HOMBACH: Yes, you indicated
- 17 that recent agreements with municipalities, or more
- 18 generous for the municipalities than they have been in
- 19 the past. What types of incentives are being offered
- 20 to municipalities?
- 21 MR. RICK HENDRIKS: Typically they're
- 22 of -- of two (2) forms. They could be revenue-sharing
- 23 agreement or an -- an equity partner agreement,
- 24 although municipalities have tended to opt towards the
- 25 revenue sharing, but there are municipalities that do

- 1 have equity shares. Those would be the two (2) main
- 2 ways.
- Now, there are other ways in which
- 4 benefits could accrue to the local communities. There
- 5 could be set asides, for example, contractual set
- 6 asides for local companies. It might not be the muni -
- 7 municipal government, per se, who would benefit, but
- 8 local companies. There could be several, you know,
- 9 donations. Grants in lieu of taxes. There could be
- 10 several ways in which -- in which the Proponent conveys
- 11 benefits to the local community.
- 12 MR. SVEN HOMBACH: Did you turn your
- 13 mind when you tried to determine what the Aboriginal
- 14 benefits are for different projects as to whether those
- 15 accrue primarily in the south or in the north in other
- 16 provinces? For example, there's a number of wind farms
- 17 in southern Ontario. There are a few in northern
- 18 Ontario as well, but are those benefits primarily in
- 19 northern Ontario or southern Ontario?
- 20 MR. RICK HENDRIKS: They're in both,
- 21 yeah. They're Aboriginal -- there is an Aboriginal
- 22 ownership of a -- part ownership of a project in
- 23 southwestern Ontario, as well as in southern Quebec.
- 24 In fact, one (1) of the projects is -- is entirely
- 25 owned by a -- an Aboriginal group in southern Quebec.

- 1 So it's -- it's a bit of both.
- In BC, the wind region, the primary wind
- 3 region is in the Peace region, which is in northeast
- 4 British Columbia, so all of those are in -- on Crown
- 5 land, so Aboriginal groups are involved in all of those
- 6 projects. And the only other project in BC is in
- 7 northern -- on northern Vancouver Island, so -- which
- 8 would be considered the north if you lived in BC. So
- 9 those are all in the north, but in Quebec and Ontario,
- 10 there's a mix.
- 11 MR. SVEN HOMBACH: And in your view, if
- 12 there were to be more wind development in this
- 13 province, do you see it as feasible for any of that
- 14 development to take place in northern Manitoba as
- 15 opposed to in southern Manitoba where it's taken place
- 16 to date?
- 17 MR. RICK HENDRIKS: I do not. The wind
- 18 resources in southern Manitoba are far superior to
- 19 those in -- in northern Manitoba, and I wouldn't think
- 20 that a project in northern Manitoba could compete.
- 21 MR. SVEN HOMBACH: And it follows,
- 22 then, that there wouldn't be any northern Aboriginal
- 23 benefits flowing from wind projects in southern
- 24 Manitoba?
- MR. RICK HENDRIKS: I would say that

- 1 would be correct, yes.
- MR. SVEN HOMBACH: Okay. Thank you,
- 3 sir. Those are all my questions to you. I would like
- 4 to clarify the record, having spoken to Ms. Pachal
- 5 earlier, I referred you to -- I used the word 'public
- 6 safety' earlier, indicating that among the top three
- 7 (3) VECs, Manitoba Hydro used public safety as number
- 8 two (2). It should actually have been public safety
- 9 and worker interaction.
- 10 You understand that to be the case now?
- 11 MR. RICK HENDRIKS: I understand that
- 12 is the case, yes.
- MR. SVEN HOMBACH: Thank you, sir.
- 14 THE CHAIRPERSON: Ms. Saunders, please.
- 15
- 16 RE-DIRECT EXAMINATION BY MS. JESSICA SAUNDERS:
- 17 MS. JESSICA SAUNDERS: Yes, thank you,
- 18 Mr. Chair. I do have a few questions in redirect, if -
- 19 if that's all right, but before I do that, I'm
- 20 advised by Mr. Hendriks that over the break, he did
- 21 consider one (1) of the questions that you had posed to
- 22 him earlier this morning, and so he did, I do believe
- 23 want to provide some additional comments on that before
- 24 I ask some questions in redirect.
- MR. RICK HENDRIKS: Thank you, Mr.

- 1 Chairman. I just wanted to clarify a comment that I
- 2 think that you said, that I was proposing that wind
- 3 development should replace Keeyask, or act as a
- 4 replacement to Keeyask. In my presentation, I
- 5 presented many different ways in which wind could be
- 6 part of the resource mix here in Manitoba.
- 7 On its own, wind cannot replace Keeyask.
- 8 Keeyask provides capacity, dependable capacity, and --
- 9 and wind does not, so wind would need to be part of a
- 10 portfolio with -- with capacity, if it were to replace
- 11 Keeyask. So I just wanted to -- to clarify that point,
- 12 that I was not proposing that on its own, wind
- 13 development would replace Keeyask.
- 14 MS. JESSICA SAUNDERS: Thank you. Just
- 15 a few questions in redirect. Mr. Hendriks, Mr. Regehr
- 16 asked you if you were aware that the EIS addresses
- 17 issues such as health, client enjoyment, and loss of
- 18 place, and those three (3) additional considerations
- 19 you had mentioned were in response to a question from
- 20 the Chair on your slide 14 of your presentation. If we
- 21 could just bring that up?
- 22
- 23 (BRIEF PAUSE)
- 24
- MS. JESSICA SAUNDERS: And I just want

- 1 to confirm. In this slide you are discussing the
- 2 definition of socioeconomic impacts in the NFAT. And -
- 3 and Mr. Chair had asked you to identify potential
- 4 additional considerations that would be important to
- 5 Aboriginal communities.
- Is that your recollection?
- 7 MR. RICK HENDRIKS: Yes, that's my
- 8 recollection, based on the materials in the definition
- 9 itself, which is on slide 13.
- 10 MS. JESSICA SAUNDERS: Okay. And so in
- 11 response to some of Mr. Regehr's questions, the
- 12 particular one, whether you're aware of the IES
- 13 addressing those three (3) additional considerations
- 14 you mentioned; health; quite enjoyment; and loss of
- 15 place.
- I'll refer you to Manitoba Hydro
- 17 response to CAC-123a filed in the Information Request
- 18 process on the screen. Did you review this -- this
- 19 chart? This would be from the first round of
- 20 Information Request. It's a matrix summarizing where
- 21 Manitoba Hydro in fact summarizes the socioeconomic
- 22 benefits under the various plans.
- 23 MR. RICK HENDRIKS: Yes, I did.
- 24 MS. JESSICA SAUNDERS: Okay. What is
- 25 your understanding of this chart insofar as the

- 1 additional considerations of health, quiet enjoyment,
- 2 and loss of place are concerned? So what, if any,
- 3 information on those considerations do you see as being
- 4 indicated in this chart?
- 5 MR. RICK HENDRIKS: I don't see those
- 6 as being indicated in this chart.
- 7 MS. JESSICA SAUNDERS: Thank you. In
- 8 redirect, with respect to Mr. Hombach's question just
- 9 to you regarding the socioeconomic benefits of wind
- 10 that would not necessarily apply to Northern
- 11 communities, I just wanted to confirm, Mr. Hendriks, in
- 12 your understanding of potential benefits to Aboriginal
- 13 communities, could those benefits apply to say an
- 14 umbrella organization, whether it be First Nation or
- 15 Metis, that has representatives from communities that
- 16 happen to be northern and southern and say pull their
- 17 resources and develop a joint venture of some sort that
- 18 would be all-encompassing of communities say from north
- 19 and south.
- 20 Is that something that may be within the
- 21 ambit of Aboriginal communities that you've discussed
- 22 in your report?
- 23 MR. RICK HENDRIKS: Yes. There are a
- 24 num -- there are a number of different ways in which
- 25 communities across Canada, both Aboriginal and non-

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- 1 Aboriginal, have chosen to participate in wind
- 2 development, so those include cooperatives.
- 3 Cooperatives would be drawing from a wide -- could be
- 4 drawing from a wide geographical area in terms of their
- 5 participation.
- So, yes, it's conceivable that that
- 7 could be the case, yeah.
- MS. JESSICA SAUNDERS: Those are all my
- 9 questions. Thank you.
- 10 THE CHAIRPERSON: Thank you, Ms.
- 11 Saunders. I believe that ends today's proceedings.
- 12 Oh, Mr. Orle, please.
- MR. GEORGE ORLE: Yes. Thank you, Mr.
- 14 Chair. Last week, when we had concluded with the MKO
- 15 portion being deferred to -- to the panel in Thompson,
- 16 there had been an agreement between all counsel and the
- 17 PUB counsel that the opinion letter from Chymko
- 18 Consulting and Desiderata Energy Consulting would be
- 19 put before the panel on the record as MKO Exhibit
- 20 number 7. And I just have that to -- to pass around
- 21 right now. And that was the only matter that we had to
- 22 ple -- put on the record. Thank you.
- 23
- 24 --- EXHIBIT NO. MKO-7: Opinion letter from Chymko
- 25 Consulting and Desiderata

10532 1 Energy 2 3 THE CHAIRPERSON: Thank you for that, Mr. Orle. I do believe that there's no further business to conduct today. With that, I think that we'll adjourn today's proceedings. I want to thank you, Mr. Hendriks, for 7 the work you contributed -- for the work you've done and the contribution you've made to the deliberations 10 of this panel --11 MR. RICK HENDRIKS: Thank you for your 12 time today. 13 THE CHAIRPERSON: -- for your 14 thoughtful paper and comments. And we will -- the rest 15 -- those of us that are meeting again, we'll meet 16 tomorrow morning at nine o'clock. So thank you very much, everyone. Have a good evening. 17 18 19 (WITNESS STANDS DOWN) 20 21 --- Upon adjourning at 2:40 p.m. 22 23 24 25

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