

LOWER CHURCHILL HYDROELECTRIC GENERATION PROJECT
JOINT REVIEW PANEL

PROJET DE CENTRALE DE PRODUCTION D'ÉNERGIE HYDROÉLECTRIQUE DANS
LA PARTIE INFÉRIEURE DU FLEUVE CHURCHILL
COMMISSION D'EXAMEN CONJOINT

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Volume 25

JOINT REVIEW PANEL

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Happy-Valley Goose Bay, NL

2

3 --- Upon commencing Friday, April 1, 2011 at 9:04

4 a.m.

5

CHAIRPERSON GRIFFITHS: Good

6 morning, ladies and gentlemen. I'd welcome you

7 here to the start of this general session. We're

8 about to begin the proceedings if people are ready.

9

Before we begin with our regular

10 agenda, we have housekeeping items. I have one

11 item, and then I will turn to Nalcor and I believe

12 they may have some housekeeping items.

13

And the panel's housekeeping item

14 is that I want to make a statement on behalf of the

15 panel as follows.

16

The panel has consistently

17 indicated that they want these public hearings to

18 proceed in an atmosphere of courtesy and mutual

19 respect. The panel has been satisfied by the

20 demeanour of most participants most of the time and

21 wishes to acknowledge the patience and courtesy

22 shown during these long and tiring days of

23 hearings.

24

However, the panel wants to remind

25 some participants that certain behaviours are not

26 acceptable; comments and laughter from the audience

1 when others are speaking, statements attacking
2 personal credibility and character of presenters,
3 offensive remarks or an aggressive style of
4 questioning.

5 Please cooperate with us during
6 the remaining hearing sessions to ensure that the
7 focus remains on eliciting information that will be
8 helpful to the panel's deliberations.

9 If this request is disregarded by
10 some, the panel may have to change questioning
11 procedures.

12 Since we have only a very few
13 people sitting in the audience right now, I will be
14 repeating this statement later on today to ensure
15 that others hear it as well.

16 I think that concludes
17 housekeeping from the panel's perspective. I will
18 now turn to the Proponent.

19 MR. G. BENNETT: That's great.
20 Thank you, Madam Co-Chair. Just a couple of
21 points.

22 I think just in the interest of
23 moving things along this morning, I think it would
24 be helpful if we step right to the mercury
25 presentation. I think the material that we have in

1 the general presentation is material that we've
2 probably been through, so unless there was some
3 specific questions, I think in the interest of
4 moving things along we can go right to that.

5 I think the other thing that may
6 be of interest to the panel, of course, is our
7 response to the letter of March 21st, and we do have
8 a draft. It's undergoing final proofreading, so
9 unless something catastrophic happens, I expect to
10 have that by close of business today.

11 CHAIRPERSON GRIFFITHS: Thank you
12 very much, Mr. Bennett. That's very helpful, the
13 timing of that.

14 And that's fine if you'd like to
15 move right on to the mercury presentation. Great.
16 Thank you.

17 MR. G. BENNETT: I think Mr.
18 Denstedt has a couple of comments, if that's okay.

19 --- COMMENTS BY MR. SHAWN DENSTEDT:

20 MR. DENSTEDT: Good morning,
21 panel. Just a couple things this morning.

22 First of all, in respect of the
23 cross-cutting session yesterday, the panel, the
24 Nalcor panel, was surprised by some of the
25 information put forward by Ms. Luttermann, just

1 putting the panel on notice that we will be
2 responding to that in due course, whether that's in
3 final submissions or not.

4 And I was glad to hear the
5 comments from the Chair this morning about the --
6 some of the behaviour because it has been an
7 ongoing problem and it's important for Nalcor to
8 bring this to the panel's attention specifically.
9 And as we are all aware, that have been catcalls
10 and jeers from the audience.

11 I'm sitting here in the corner. I
12 hear profanity-laced comments relentlessly through
13 the process. And it's not appropriate.

14 But Nalcor is a big boy. They can
15 take it. They shouldn't have to, but they will.
16 But it's more important that the atmosphere that's
17 been created because we were informed last night
18 that the atmosphere of intimidation is keeping
19 people away, and that's the exact opposite thing
20 that's supposed to happen at these processes.

21 And I guess the question I'd have
22 for the panel or the observation is that I'm not
23 sure how you fix that. I think what you've said
24 this morning is a step in the right direction. But
25 who wouldn't be intimidated when they see people

1 come here in good faith and get beat up, get
2 insulted and their entire credibility is challenged
3 in front of the public?

4 So I think for the public to feel
5 free to come forward and provide their honest
6 views, the atmosphere needs to be one that isn't
7 intimidating. And I think your comments this
8 morning might be a step in the right direction.

9 I think what I'd also like to
10 point out is that Mr. Marcocchio, who has been the
11 biggest offender, but not the only offender of
12 this, is essentially a professional intervenor.
13 We've seen him at many hearings.

14 It's a strategy that he pursues at
15 every hearing he attends. It's a strategy of
16 intimidation to make sure that the informed debate
17 is squelched, and that's the process he's taken.

18 So it allows him to say yesterday,
19 "Well, it's unanimously in favour of people are
20 opposed to the project". Well, that's not true.

21 And you can't allow him to hijack
22 the process any more, so I appreciate your comments
23 this morning and we hope that the process improves.

24 If it doesn't, you're going to see
25 a lot more of me.

1 CHAIRPERSON GRIFFITHS: Thank you
2 for your comments, Mr. Denstedt.

3 Just a minute, please, Mr.
4 Hendriks.

5 I will invite other people to make
6 brief comments about this matter. I will just --
7 we will take all of the comments, including Mr.
8 Denstedt's comments, about this matter under
9 advisement. We're not about to make some instant
10 response and we will -- the panel will be
11 discussing it at the next break about how we wish
12 to proceed.

13 The only thing I will say is I
14 will remind everyone that the panel is able to make
15 discernments in terms of information and statements
16 that are made and obviously the panel is not --
17 does not intend to be swayed by certain types of
18 behaviour.

19 So I just want to remind everybody
20 about that. It's not overly effective, is my
21 comment.

22 Having said that, I will now ask
23 for brief comments. Please deliver it in a -- I'm
24 sure, Mr. Hendriks, this is not directed at you.
25 Deliver it in a calm or polite manner, please.

1 This will help us try to understand what the panel
2 -- how the panel should proceed.

3 Mr. Hendriks.

4 --- COMMENTS BY THE PUBLIC:

5 MR. HENDRIKS: Yeah. Just an
6 observation, I guess, that I think several people
7 have made.

8 We've noticed that the tone of the
9 responses from the Proponent has also changed this
10 week. And I don't know -- I don't think that's
11 intentional. I think it's just that there has been
12 an increase in the emotion about the situation.

13 And so I just ask that the
14 Proponent also, you know, consider -- you know, our
15 emotions are rising, so you know, we've noticed
16 that on your side as well so we just ask you to try
17 to pay attention to that.

18 Just a comment in response to Mr.
19 Denstedt's observations. I've noticed also, I
20 guess, myself a change, and that is that we've
21 moved down the road instead of saying -- for
22 example, Mr. Denstedt pointed out Ms. Luttermann.

23 Rather than saying, perhaps, "We
24 heard some comments about riparian ecosystems
25 yesterday that we will respond to", that's not what

1 Mr. Denstedt said. He said, "We heard some
2 comments from Ms. Luttermann that we will respond
3 to".

4 And maybe the personalizing of the
5 comments made by others is maybe not the way to go.
6 Maybe we need to try to just stick to, you know,
7 making comments about the information rather than
8 comments about people.

9 That would be my suggestion.

10 CHAIRPERSON GRIFFITHS: Thank you
11 very much, Mr. Hendriks.

12 Mr. Marcocchio.

13 MR. MARCOCCHIO: I just would like
14 to remind the panel that the task here is to review
15 the information put before the panel and come to
16 some sort of a reasoned determination about the
17 issues here and that the Proponent's clearly this
18 week been changing their approach into attacking
19 not only myself but attacking anyone who presents
20 the devastating truth about the nature of the
21 financial footing of this project or the ecological
22 impacts.

23 My moral character or anyone
24 else's moral character is really not what's at test
25 here and not what one would hope the panel would be

1 focusing on. I'm quite content, as I hope the
2 panel will be quite content, to let history make
3 some determination on the respective moral
4 characters of the participants in this process.
5 And that the task here is to come to some reasoned
6 determination about the financial viability, the
7 need, and the ecological impacts of this proposal.

8 Thank you.

9 CHAIRPERSON GRIFFITHS: Thank you,
10 Mr. Marcocchio. I would concur that -- or I would
11 like to just add that certainly the panel is mainly
12 focusing on behaviour. This is what our statements
13 and this discussion is about, is about behaviour in
14 this hearing room. And when behaviour -- when
15 emotions run high and accusations are being flung
16 around and people's credibility, in any direction,
17 is being impugned; I just have to tell you from a
18 panel -- I'll say this from a personal perspective
19 sitting here as a panel member with a difficult
20 task, it is highly distracting. It does not help
21 us with concentrating and analyzing the information
22 being presented and being able to ask good
23 questions to elicit more information. So that's
24 just my comment.

25 Mr. Davis, please.

1 MR. DAVIS: Thank you, Madam
2 Chair. I'm glad you're going to repeat what you
3 previously said because obviously there aren't that
4 many people here this morning, at least not yet.

5 But I feel that even though I
6 wasn't named by whoever, the lawyer I guess, I'm
7 probably a target of some of those statements. And
8 the reason I made the remark that may not have gone
9 over too well yesterday was because for several
10 mornings we've been subject to, I guess, an
11 attitude from the Proponent promoter. That is just
12 unbelievable to expect that those people would come
13 up with some of those comments, for example, a
14 hypothetical example calling black white and not
15 getting a response from the people who are
16 listening. I think a bit of credibility that would
17 go over a little bit better than almost complete
18 contrast to what we perceive to be the facts. So I
19 think if they tone it down a bit, I think some of
20 the people who are listening will probably do the
21 same.

22 Thank you.

23 CHAIRPERSON GRIFFITHS: Thank you
24 very much, Mr. Davis.

25 Is there anybody us who wishes to

1 make a comment on this issue at this time? If not,
2 thank you very much. Thank you very much for
3 listening to the panel's point of view on this and
4 perhaps we can collectively make an effort to try
5 and proceed in a reasoned and respectful manner
6 with focusing on exactly why we're all here in the
7 room.

8 I want to also acknowledge that I
9 know that for many of you, you basically put your
10 lives on hold to come and participate in these
11 hearings and -- but some people get paid and some
12 people get nothing for it. And a panel does
13 recognize that and we know you're putting in long
14 hours, both in the hearing room and outside the
15 hearing room and we know that tempers get frayed.
16 And so perhaps we can collectively take a deep
17 breath and try to proceed in a slightly calmer
18 atmosphere.

19 The panel will take into
20 consideration everything that's been said,
21 including the remarks from the Proponent and we'll
22 -- if we feel that we need to say something
23 additional, we'll do that probably after the break.
24 And, as I said, I will probably repeat our opening
25 statement a bit later on, maybe after coffee or

1 after lunch so that possibly more people can hear
2 it, and you can pass the word if you like too.

3 Anyway, thank you very much for
4 listening to that and we'll now proceed to the
5 mercury presentation by Nalcor.

6 MR. BURLINGAME: Yes, we will have
7 Dr. Knopper, whom you've met before on the phone,
8 go through the presentation.

9 Are you there?

10 DR. KNOPPER: Yes, I am. Can you
11 hear me all right?

12 MR. BURLINGAME: I believe so.

13 Sorry one moment, please. Yes,
14 that gentleman right there.

15 CHAIRPERSON GRIFFITHS: Sorry this
16 is Dr. Knopp -- I'm sorry the pronunciation?

17 DR. KNOPPER: Knopper.

18 CHAIRPERSON GRIFFITHS: Knopper,
19 yes, thank you for joining us on the phone.

20 MR. BURLINGAME: Go ahead.

21 --- PRESENTATION FROM NALCOR BY DR. LOREN KNOPPER:

22 DR. KNOPPER: All right. Thank
23 you for the introduction, and thank you to the
24 panel for allowing me to give this presentation by
25 phone. I'm very sorry that I can't be there in

1 person today.

2 So as mentioned my name is Loren
3 Knopper; I am an environmental healthy scientist at
4 Stantec Consulting. I have a PhD from the
5 University of Ottawa in Biology with an emphasis on
6 environmental toxicology. I have Master's degree
7 from the University of New Orleans with an emphasis
8 on animal physiology. I have an undergraduate
9 degree from the University of Guelph also in
10 Biology.

11 After my PhD I was a post-doctoral
12 Fellow at Environment Canada at the National
13 Wildlife Research Centre here in Ottawa. I hold an
14 adjunct professor position at Carleton University
15 and at the Royal Military College of Canada, and I
16 have taught risk assessment and toxicology at the
17 graduate level at both of these -- institutions,
18 rather.

19 So good morning to everyone, and
20 next slide please.

21 For the next 15 or 20 minutes or
22 so I will talk to you about mercury. I will start
23 with the definition of mercury, talk a little bit
24 about mercury in the environment, the effects of
25 methylmercury on health. I'll talk to you about

1 how you can use hair in bio-monitoring studies;
2 I'll give examples of mercury releases to the
3 environment, talk a little bit about fish
4 consumption advisories, and then wrap up with some
5 statements about moving forward.

6 At the top of this slide I have a
7 picture of myself, so you can see who is actually
8 giving this presentation.

9 Next slide, please.

10 So what is mercury? Its symbol is
11 Hg; is a naturally occurring metal found in three
12 main forms; elemental, inorganic, and organic.

13 So elemental mercury or metallic
14 mercury -- it's also known as quicksilver, which is
15 a silver shiny liquid -- is found in barometers,
16 thermometers, dental fillings and compact
17 fluorescent light bulbs.

18 Inorganic mercury, also known as
19 mercury salt, is formed when elemental mercury
20 combines with other elements such as, for example,
21 oxygen or sulphur. And it's found in fungicidal
22 products, topical disinfectants, and as a
23 preservative in many vaccines.

24 Next slide, please.

25 Now, organic mercury is the

1 combination of inorganic mercury and carbon. And
2 in the environment this combination process
3 generally takes place by bacteria, called sulphur
4 reducing bacteria, to create methylmercury. And
5 it's generally abbreviated as MeHg.

6 Of the three forms, methylmercury
7 is generally regarded as the most toxic to humans
8 and animals.

9 Next slide, please.

10 Now, mercury is released into the
11 environment through natural and human processes.
12 So some examples of natural processes are the
13 breakdown of rocks and soil, volcanic eruption, and
14 forest fires. Now, a few examples of human
15 releases of mercury to the environment are the
16 burning of coal, mining, incineration and
17 incineration mainly of waste, and smoking of
18 cigarettes.

19 So as a result elemental and
20 inorganic mercury can be deposited throughout the
21 environment and then they land in soil, land in
22 water, sink down to the sediment and then are
23 naturally transformed to methylmercury by bacteria,
24 and this is a process known as methylation.

25 Next slide, please.

1 So as illustrated in this flow
2 diagram, and in terms of reservoirs, when land is
3 flooded through reservoir creation soils and
4 vegetation become exposed to water. This flooded
5 vegetation provides food for bacteria, and then
6 these bacteria naturally transform mercury in soil
7 to methylmercury. And then this methylmercury is
8 taken up aquatic organisms, let's say like insects
9 and fish.

10 Next slide, please.

11 Just so I can make sure, are we on
12 Slide 7, "Accumulation and Magnification"? That is
13 where we are?

14 MR. TRIMPER: We are, sir.

15 DR. KNOPPER: Excellent, thank
16 you.

17 So accumulation and magnification;
18 organisms accumulate methylmercury faster than they
19 eliminate it. And as smaller aquatic organisms are
20 eaten by larger ones methylmercury can biomagnify
21 and becomes more concentrated in each step of the
22 food web, and this is illustrated in a diagram to
23 the right. So you have little organisms at the
24 bottom and they have one red dot and that's
25 methylmercury. So that shows that they have

1 accumulated methylmercury from their environment,
2 and then the animals are eating them and the more
3 steps you have in the food web the more and more
4 methylmercury dots they end up having.

5 So by eating larger aquatic
6 organisms, people and wildlife can be exposed to
7 methylmercury.

8 Next slide, please.

9 So what happens to methylmercury
10 after it is ingested? Well roughly 95 percent of
11 ingested methylmercury is absorbed in the stomach
12 and the intestines, the GI tract. And then
13 methylmercury is distributed to all the tissues via
14 the blood, including the brain and the foetus, and
15 preferentially accumulates in the kidney. Now, it
16 doesn't stay in the kidney, it doesn't stay in your
17 body. Methylmercury is eliminated from your body;
18 primarily it's eliminated in feces. It can also be
19 excreted in hair and breast milk. Generally 90
20 percent of ingested methylmercury is excreted over
21 a period of several months.

22 So this means if you were exposed
23 to methylmercury once, and only once, after a
24 certain amount of time the level of mercury in your
25 body would approach zero.

1 Now, this isn't the case in
2 reality because we are constantly exposed to
3 mercury and everyone has some level of mercury body
4 burden.

5 Next slide please.

6 What are the effects of exposure?
7 Well, the developing foetus and children are more
8 sensitive to methylmercury than adults. The
9 primary health effect in the young is impaired
10 neurological development. And this is the basis of
11 the health guidelines globally, and they're meant
12 to be protective of the foetus and children.

13 Other known symptoms in humans
14 include parasthesia, which is the loss of sensation
15 in the arms, legs and around the mouth, dysarthria,
16 which is impairment of speech, ataxia, which is a
17 loss of coordination, visual and hearing impairment
18 and limb tremors, and in extremely high doses
19 people have known to have birth defects, coma and
20 mortality.

21 And this was evidenced in
22 Minamata, Japan and I'll discuss this in a few
23 slides later on.

24 Next slide please.

25 In terms of cancer, in 2001 the

1 United States Environmental Protection Agency said
2 that there was no persuasive evidence of increased
3 carcinogenicity attributable to methylmercury
4 exposure, but they, along with the International
5 Agency for Research and Cancer, the IARC, still
6 classified it as a possible human carcinogen and
7 they did this -- both agencies stated that their
8 assessment was based on inadequate data in humans
9 and very limited evidence of carcinogenicity in
10 animals.

11 In 2020 the USEPA said that
12 methylmercury from environmental exposures are
13 unlikely to cause cancer in humans and Health
14 Canada does not assess methylmercury as a
15 carcinogen.

16 Next slide please.

17 Now, if you remember, I said that
18 methylmercury is distributed through the body in
19 blood, accumulates in kidney and is then excreted
20 in part in hair. So the concentration of mercury
21 in hair is proportional to that in blood and
22 mercury in blood is an indicator of what has been
23 consumed. So the measurement of mercury in hair
24 can be used as a marker of exposure to
25 methylmercury and a marker of effect to

1 methylmercury.

2 Now, there's a pretty consistent
3 ratio between the concentration of mercury in your
4 hair and to what it is in the blood and it's
5 generally regarded to be 250 to one. However,
6 there is variability in this ratio and I have seen
7 it published in the range of 140 to 370 to one, and
8 some of the possible reasons for this variation are
9 related to differences in hair growth, genetic
10 differences and potentially differences in people's
11 diets.

12 Next slide please.

13 So hair mercury can be linked back
14 to effects in humans and that's what this table
15 shows. So in the column to the left you have hair
16 concentrations of methylmercury in milligrams per
17 kilogram and on the right you have the observed
18 effects.

19 If we start at the top we have the
20 low dose, so less than 10 to 14 milligrams per
21 kilogram in hair, and epidemiological studies have
22 shown there are no measurable effects in pregnant
23 women, nursing women and young children or adults
24 at this level.

25 And this hair concentration is the

1 basis of the Health Canada and JECFA, which would
2 be Joint World Health Organization and the Food and
3 Agricultural Organization Expert Committee on Food
4 Additives and Contaminants. That's why they
5 abbreviated it. These values are the basis of the
6 provisional tolerable daily intakes set by these
7 agencies.

8 As you go higher in concentration
9 you can see more and more effects.

10 So at less than 50 or around the
11 50 milligram per kilogram mark is when you start
12 seeing the earliest signs of symptoms in adults,
13 epidemiological studies from around the world has
14 shown us this and this is about where parathesia
15 starts coming in.

16 At greater than 50 to 125
17 milligrams per kilogram you start seeing some
18 weakness in people and the lack of coordination and
19 movement going up all the way to greater than 900
20 milligram per kilogram where coma and death have
21 been observed.

22 Next slide please.

23 So I mentioned earlier that
24 everyone has some level of mercury in their
25 systems.

1 In 2006 Rene Canuel and colleagues
2 published the results of a study that they
3 conducted in 2002 where mercury concentrations in
4 hair from sports and subsistence fishers of the
5 Abitibi and Lac St. Pierre regions of Quebec and
6 from Sheshatshiu were assessed. And illustrated on
7 this graph are roughly the maximum measured hair
8 concentrations of people from the three
9 communities.

10 So on the Y-axis we have the
11 maximum mercury concentration in hair in milligrams
12 per kilograms and on the X-axis are the three
13 studies.

14 Now, it should be noted that the
15 hair measured in members from Sheshatshiu
16 correspond to the three month camp season where the
17 traditional way of life is followed in remote
18 hunting and fishing settlements, and what you can
19 see is that in all three communities the hair
20 concentrations are less than what is protective of
21 pregnant women, nursing women and young children.
22 And that's marked with a dash line where it says
23 the Health Canada threshold at around 10 milligrams
24 per kilogram.

25 Next slide please.

1 So to put these baseline
2 concentrations into context I found information
3 related to three examples of human exposure to
4 human sources of methylmercury in the environment.

5 And so if we start with the first
6 sort of column -- sorry -- again on the Y-axis we
7 have maximum mercury concentration in hair in
8 milligrams per kilogram and then on the X-axis we
9 have this study.

10 So in the first one it's La Grande
11 Reservoir Complex from Northern Quebec where around
12 11,500 square kilometres of land were inundated for
13 reservoir creation. The maximum concentration of
14 mercury in hair of Cree living in this area was
15 roughly 86 milligrams per kilogram.

16 And I have a slide later on
17 discussing how fish consumption advisories were
18 actually effective in reducing this value in
19 people.

20 The column next to it is from
21 Dryden, Ontario where a paper mill dumped the
22 equivalent of 9,000 kilograms of mercury into the
23 English Wabigoon River system between 1962 and 1970
24 affecting the community's Grassy Narrows and
25 Wabaseemoong. The maximum hair concentration of

1 people from these communities was roughly 200
2 milligrams per kilogram.

3 And in the last column on the
4 right it's from Minamata, Japan, the Chisso
5 Chemical Plant released methylmercury from
6 wastewater into Minamata Bay from 1932 to 1968 and
7 the maximum concentration of people from this area
8 was roughly 705 milligrams per kilogram.

9 Under each one of these studies I
10 have a reference to the study where the information
11 was obtained.

12 Next slide please.

13 As I noted earlier, mercury
14 concentrations in hair are a good marker of mercury
15 consumed in the diet. So to put the hair
16 concentrations from the previous slide into context
17 I found methylmercury concentrations from fish in
18 these areas.

19 And so for Minamata, Japan the
20 maximum mercury that was found in shellfish was
21 between 50 and 60 milligrams per kilogram.

22 From Grassy Narrows and
23 Wabaseemoong in Ontario the mean now -- no longer
24 the maximum -- but the mean mercury in northern
25 pike was around six milligrams per kilogram but it

1 was as high as 16 milligrams per kilogram in
2 walleye.

3 From the La Grande Reservoir
4 Complex mean again mercury in northern pike was
5 around 3.5 milligrams per kilogram.

6 For the proposed Lower Churchill
7 project it's predicted that the peak concentration
8 in lake trout would be two milligrams per kilogram.

9 Next slide please.

10 So in terms of the proposed
11 project, predicted peak mercury concentrations in
12 lake trout, as well as four other fish species, are
13 expected to exceed Health Canada's commercially
14 sold limit for mercury concentrations in fish of .5
15 milligram per kilogram.

16 And as a result, Nalcor will work
17 proactively with local community governance to
18 establish consumption advisories as a means of
19 reducing possible methylmercury exposure to people.

20 Next slide please.

21 Now, when communicated effectively
22 and clearly and when community members are involved
23 in the process, consumption advisories have
24 resulted in a decrease in contaminant load in
25 people, and this is illustrated in this slide.

1 On the Y-axis again we have
2 maximum mercury concentration in hair and then on
3 the X-axis I have sort of two panels I suppose. On
4 the left panel I have hair concentrations of adults
5 from the La Grande Complex from 1988 and again from
6 1993 and '94, and on the right panel we have women
7 between 15 and 39 years of age, again from 1988 and
8 1993-1994.

9 This data comes from a study by
10 Chevalier et al from 1997 where they reported data
11 on Cree living in Northern Quebec and exposed to
12 fish influenced by the La Grande Reservoir Complex.

13 So what can be seen on this graph
14 is that hair mercury concentrations from 1988 are
15 lower than -- sorry -- that hair concentrations
16 from 1998 decreased and this decrease was
17 attributed to a reduction in fish consumption
18 and/or a switch of the diet from piscivorous fish,
19 so fish that eat other fish, to non-piscivorous
20 fish and those fish have lower concentrations.

21 And Chevalier, et al, stated that
22 this decrease was likely the result of a
23 communication effort and the fish consumption
24 advisories.

25 Next slide, please? So Nalcor has

1 suggested the use of a dietary unit system as a way
2 of reducing possible methylmercury exposures, as
3 well as a means for people to select different fish
4 types. Health Canada, in their presentation a few
5 weeks ago, has stated that this system may be
6 considered a potentially effective communication
7 strategy.

8 Next slide, please? Now, for
9 future steps.

10 Prior to changing conditions of
11 the river, Nalcor will work with local communities
12 to conduct dietary surveys and hair sampling to
13 assess present day mercury exposures. This will be
14 conducted per EIS guidelines 4.4.4.6.

15 Nalcor will work with local
16 communities to design and implement a comprehensive
17 communication plan. Some of the examples are the
18 agency and community group notifications and
19 postings, media advertising, participation in
20 community events, and school presentations and
21 other direct contact.

22 Nalcor is also committed to
23 completing a final human health risk assessment for
24 the area.

25 Thank you very much for your time,

1 and I'll take any questions you may have.

2 CHAIRPERSON GRIFFITHS: Thank you
3 very much for your presentation, Dr. Knopper.

4 I imagine you've gathered that I'm
5 Lesley Griffiths. I'm Co-Chair of the panel, and I
6 am chairing today's session, and I will ask
7 everybody else to identify themselves so that you
8 know who you are speaking to.

9 The first step is that I will ask
10 my colleagues on the panel if they have questions
11 for you.

12 Go ahead.

13 --- QUESTIONS BY THE PANEL:

14 MEMBER DOELLE: Yes, good morning.
15 My name is Meinhard Doelle; I'm
16 one of the panel members.

17 I have two areas that I'd like to
18 explore with you, briefly.

19 First, a question of clarification
20 about Slide 17 -- you may have talked about this.
21 I missed one part of your presentation while I was
22 writing down the question, so forgive me if you
23 addressed this.

24 But I'm wondering whether can
25 clarify whether the reductions are only as a result

1 of consumption advisories or whether there are
2 other factors such as changes in methylmercury
3 concentration in the food chain during that time
4 period?

5 DR. KNOPPER: Thank you, Meinhard,
6 it's a good question.

7 The Chevalier study I don't have
8 exactly at my fingertips. I don't believe they
9 talked about the concentrations of mercury in fish
10 at a different times period, but they did attribute
11 the decrease to a reduction in fish consumption and
12 a switch from piscivorous fish to non-piscivorous
13 fish.

14 MEMBER DOELLE: Okay, thank you.

15 The other area I wanted to ---

16 DR. KNOPPER: And a move ---

17 MEMBER DOELLE: The other area I
18 wanted to explore is your comments about
19 bioaccumulation, and the first question is whether
20 the bioaccumulation process is different in fish,
21 seals, versus humans?

22 And I'm asking this in part as a
23 follow-up. I'm trying to understand a bit what you
24 said about the idea that in humans it actually
25 doesn't bioaccumulate, that if you only have a one-

1 time exposure that the concentrations eventually go
2 down to zero.

3 So part of my question is whether
4 that's also the case for fish species and seals
5 that may be affected?

6 DR. KNOPPER: Well, there's sort
7 of two issues here.

8 There's bioaccumulation and then
9 there's biomagnifications. And so organisms can
10 accumulate from the media that they're living in
11 and then they can have methylmercury biomagnify as
12 it moves up.

13 Now, in the body, all bodies, fish
14 and seals and humans alike, the body doesn't like
15 having things in it that it doesn't want and there
16 is a process of removing things from the body, a
17 detoxification, if you will.

18 I'm not 100 percent familiar with
19 the fish physiology or how the seal physiology
20 differs from the human physiology, but everything
21 becomes detoxified. And so I would imagine that
22 for fish and for seals methylmercury would go in,
23 but then the body would try and detoxify it and
24 eliminate it through feces and hair.

25 MEMBER DOELLE: Okay. So if we

1 can focus on humans then? I'm familiar with the
2 term "bioaccumulation" as describing a process
3 where the toxin actually stays in the body in fatty
4 tissue or in certain organs.

5 So what I'm wondering is whether
6 -- do I misunderstand the term, or is there a
7 combination here of certain concentrations and
8 certain -- or certain parts of the toxins being
9 excreted out of the body and others -- is there a
10 portion that remains in whether it's fatty tissue,
11 whether it's in organs, or does it all eventually
12 get excreted out of the body?

13 DR. KNOPPER: In terms of
14 methylmercury, it doesn't get into the fat. It
15 stays in the issues and the muscle, but because
16 people or organisms accumulate it faster than they
17 can eliminate it, you'll always have a certain
18 amount in your body.

19 But you are releasing -- you are
20 excreting it all of the time, so it's not a steady
21 state relationship. You have input and you have
22 output, but you'll never get back down to zero.

23 MEMBER DOELLE: Right. But the
24 only reason you don't go back to zero is because of
25 the continued exposure?

1 DR. KNOPPER: That is correct.

2 MEMBER DOELLE: Okay, that's very
3 helpful, thanks.

4 DR. KNOPPER: Thank you.

5 CHAIRPERSON CLARKE: Good morning,
6 Dr. Knopper.

7 My name is Herb Clarke, I'm a
8 panel member, and thank you for your presentation.

9 I just had a question with respect
10 to the last slide having to do with future steps.

11 I'm just wondering with respect to
12 the planned dietary and hair sampling surveys for
13 the communities affected, I'm just wondering if at
14 this time it's known, the scope of this study,
15 which communities will be included? Or is that
16 something that will be -- is yet to be worked out,
17 and if it is known I would appreciate it if you
18 could give us the scope of the planned study.

19 DR. KNOPPER: Sure. Thank you.

20 I'd actually like to direct that
21 to Mr. Trimper to answer.

22 MR. TRIMPER: What is currently
23 proposed is the four communities that comprise the
24 Upper Lake Melville area and Churchill Falls.

25 CHAIRPERSON CLARKE: The reason I

1 ask the question is that in some of the discussions
2 recently the question of whether or not the people
3 in Rigolet would be included in the sampling,
4 because of the additional tests with respect to
5 seals and that nature. This is the part that I was
6 asking for clarification.

7 MS. LEEDER: Yes, as part of the
8 -- what feeds into the human health risk assessment
9 as well of course and is fundamental to it, is the
10 monitoring of methylmercury in fish and seals. So
11 depending on those results, for sure other
12 communities would be considered depending on the
13 results of the actual levels of methylmercury in
14 fish and seals.

15 CHAIRPERSON CLARKE: Okay, so it's
16 a two-step process.

17 It's the monitoring of the seals
18 out of Lake Melville and depending upon that, if
19 it's necessary, you will be -- it will be expanded
20 to include other communities?

21 MS. LEEDER: That's correct.

22 CHAIRPERSON CLARKE: Okay.

23 MR. G. BENNETT: And maybe just to
24 build on that.

25 Loren, it's Gilbert, just so you

1 know who's speaking. I guess one of the triggers
2 here was the concentration in fish, and I think we
3 saw a reference to four species that were expected
4 to have methylmercury levels that were higher than
5 the Health Canada guidelines for commercial
6 fishing.

7 So that would certainly be a
8 trigger, and if that trigger showed up somewhere
9 else then we have to assess the consumption of
10 those species and then extend the monitoring effort
11 to capture a bigger area.

12 If we can find it in the fish,
13 then we'll want to look further out.

14 CHAIRPERSON CLARKE: Okay, thank
15 you.

16 MEMBER JONG: Hello, Dr. Knopper.
17 It's Kathy Jong; I'm a panel member.

18 I'm interested in looking at the
19 link between diet and hair and blood levels for
20 mercury.

21 The two points that I wanted to
22 bring into it are, one, my own look at consumption
23 surveys and they're based on recall, and in some
24 cases I know these consumption surveys go back,
25 you're asking people, you know, how much fish they

1 ate a year ago, which I would certainly have
2 trouble with. So I guess it's -- first question
3 is, how reliable are consumption surveys and what
4 are the limitations thereof?

5 And the second question I have is,
6 I believe in -- I don't know if it was Canuel study
7 -- a study that was done in the last 8 or 10 years
8 that looked at Sheshatshui hair mercury levels and
9 found that there wasn't a good correlation between
10 hair in mercury and consumption results. And
11 again, that could be because the consumption
12 results may not have been accurate, but I think
13 there was some question about it. And you
14 mentioned it yourself, there are variations in
15 ethnicity in the ratio of certain hair to blood,
16 depending on ethnicity.

17 So I guess second question is, is
18 -- are hair samples necessarily the best way to go
19 in Sheshatshui for testing, based on these previous
20 studies. And that's it for the first part, thank
21 you.

22 DR. KNOPPER: Okay, Cathy, so your
23 first question about consumption surveys is a good
24 point. Recall, is a big issue with any sort of
25 surveys, and so surveys that are conducted should

1 be -- should be done as temporally as possible, you
2 don't want to ask people what they ate three years
3 ago, you want to try and have it as close to the
4 time as possible. I know that Nalcor has done
5 consumption surveys in the past for this project,
6 and any detailed questions about that, I'd like to
7 point to Colleen Leeder, she can talk to you
8 probably about that. In term of the Canuel study,
9 I agree this -- they showed that that 250:1 ratio
10 was not necessarily -- held true for all people,
11 yes, for some of the reasons that I outlined.

12 How useful is hair in mercury as a
13 marker? I still think it's very useful. Nothing's
14 100 percent unfortunately, in science or
15 toxicology, and at that 250:1 ratio is kind of the
16 average that people look at. The nice thing about
17 using hair as a marker is it's very non-intrusive.
18 You don't have to take blood. You don't want to
19 have to go in and take liver biopsies from people
20 or animals, because that can be -- you know,
21 obviously, that's surgical; for animals it's
22 destructive. And just being able to go out and
23 collect some hair is a much easier way to get
24 information. It's also a great way for trying to
25 get information from children, because you just

1 have to get a little snippet of hair.

2 The other nice thing about hair is
3 it, generally again, it grows at a known rate from
4 the scalp of about one centimetre per month, and
5 that way you can get some sort of temporal idea of
6 people's mercury exposure as well, so if you have
7 20 centimetre stand long piece of hair, then you
8 can get an idea, if you cut that into centimetre
9 pieces, what people have been exposed to over the
10 last 20 -- over the last 20 months. Where
11 concentrations in blood give you more of an idea of
12 what they've recently been exposed to. So hair is
13 a really nice sort of historical marker for
14 exposure.

15 MEMBER JONG: A follow-up?

16 Yeah, going back to the
17 consumption surveys then, I guess one of the things
18 I'm thinking of in Sheshatshiu for example, it's
19 not just a temporal problem in terms of recall, but
20 there's also the method of doing the consumption
21 surveys, and the written ones probably aren't going
22 to work to well, and you've probably figured that
23 -- figured that out already. And then the hair
24 versus blood, I agree completely that you certainly
25 want to go less invasive rather than more invasive.

1 I guess, the question would be if blood is a more
2 accurate measure of body mercury burden, does it
3 make sense to give people who may concerned the
4 option of a blood sample, as apposed to just hair,
5 certainly not forcing it upon people but if they
6 are concerned, that might be a possibility? I'm
7 thinking back to the Rigolet, and the north coast
8 communities participation in the International
9 Polar Year health studies, and they did both blood
10 and hair, so it has been done elsewhere. And what
11 would your view be; would you see blood as
12 potentially a more accurate way of measuring?

13 DR. KNOPPER: I don't know if I
14 would say that blood would be more accurate,
15 because it gives you more of an idea of sort of
16 recent exposure, what's circulating in the blood
17 right now before it's been accumulated or before
18 it's been removed But I do think blood information
19 and hair information could compliment one another
20 very nicely. So I wouldn't discard blood -- I
21 wouldn't discard blood data.

22 MEMBER JONG. Thank you.

23 I have one more but I can wait if
24 you want.

25 CHAIRPERSON GRIFFITHS: Dr.

1 Knopper, Lesley Griffiths again. I have a couple
2 of questions. And one question may be more
3 generally directed to Nalcor or you may know the
4 answer.

5 But my first question is, I'd like
6 to know more about the sensitivity of the
7 developing foetus to exposure to mercury. When I
8 look at your Slide 12 it begins with, you know, the
9 first line there indicates the level at which
10 there's no measurable effects in pregnant women,
11 nursing women and young children; however, as the
12 table goes on and then indicates that that's the
13 threshold level. But after that, the next one is
14 the earliest sign of symptoms in sensitive adults,
15 so -- and you don't come back to anything that
16 specifically addresses the developing foetus. Am I
17 correct in assuming that the most sensitive
18 receptor would be the developing foetus?

19 DR. KNOPPER: Yes, you are correct
20 in that, the developing foetus is the most
21 sensitive receptor. In terms of effects upon
22 children, the -- there are two, maybe three main
23 studies out that have looked at maternal exposure
24 and then effects in children, and those are the
25 studies that have been used to form the basis of

1 children grow you can see deficits in motor
2 function, language, memory and attention, and
3 things like that.

4 CHAIRPERSON GRIFFITHS: But at
5 lower levels of exposure in utero, you can still --
6 there could still be that might, in fact, be rather
7 hard to later identify as being -- as the cause of
8 it. Would that be fair to say?

9 DR. KNOPPER: Well, at the 10 to
10 14 milligram per kilogram hair concentration in
11 mothers, you're not seeing any -- studies have not
12 seen any adverse effects in children, so in utero
13 or as they develop, I think up until the age of
14 nine. So the 14 milligram per kilogram was what
15 was used to come up with the 0.23 milligram of
16 methylmercury consumed per kilogram body weight per
17 day as the oral intake. So anything where mothers
18 are exposed to mercury below those levels, you're
19 not seeing changes in the foetus and you're not
20 seeing changes in children.

21 CHAIRPERSON GRIFFITHS: But would
22 it be the case though that -- what little I know
23 about the development of foetuses is that that
24 there are very critical time periods and that the
25 relatively short exposure -- a short time exposure

1 of sufficient amounts could have an effect on the
2 fetus, if it happened at this specific time?

3 DR. KNOPPER: You're correct in
4 that; there are specific developmental points that
5 are far more sensitive to disruptions chemically,
6 but I don't know the answer to that. I'm not aware
7 of a study that looked at that, specifically in
8 animals, I'm not sure.

9 CHAIRPERSON GRIFFITHS: I suppose
10 what I'm trying to get at is that four pregnant
11 women or other adults -- say other adults -- am I
12 right in thinking that there's a little bit more
13 flexibility if the hair concentration in mercury
14 went up indicating, you know, an increased level of
15 exposure?

16 And if that were detected, you
17 could rectify things, the concentrations would go
18 down and perhaps there would be no permanent harm
19 done?

20 But that for a pregnant woman if
21 they were exposed to over the safe limits for a
22 very short period of time, it could have quite
23 deleterious effects for the unborn child?

24 DR. KNOPPER: I -- yes, I would
25 agree with that.

1 CHAIRPERSON GRIFFITHS: My second
2 question perhaps goes to Nalcor more generally or
3 you may know about this.

4 But I'd just like to explore what
5 is known and what has been studied about the
6 psychological effects of people thinking that they
7 have been or may have been exposed to mercury? I
8 mean, this is such a complicated issue.

9 And we were at a community hearing
10 in Sheshatshiu and we had a presenter who came
11 forward, very -- I would say very distressed.
12 There's lots of complicated factors, I think, about
13 what might have happened in terms of the research
14 study. So, you know, that's fine -- but clearly
15 distressed by the perception that she may have been
16 at risk of exposure to mercury and not knowing what
17 it might lead to.

18 Hopefully, she in fact is at no
19 health risk. But I think we were seeing an example
20 of the psychological effect. And, to me, just
21 thinking from my own perspective, I could I see
22 that could be a very problematic -- all right, so
23 back off -- that could be an effect, an actual
24 effect, of the project even if nobody ever had hair
25 concentrations above a dangerous level.

1 And I would like to know what
2 Nalcor can -- whether you know of any research
3 studies about that? And how you would propose to
4 -- if you think that that's a possible, potential
5 adverse effect of the project and, if so, how would
6 you set about mitigating it?

7 DR. KNOPPER: Perry, would you
8 like me to try that or is now ---

9 MR. BURLINGAME: Loren, do you
10 know of any studies that you could, you know,
11 support -- help here?

12 DR. KNOPPER: I don't, off the top
13 of my head, know of any studies like that.

14 I have done work though with wind
15 turbines. And I know that there's a lot of
16 information out now about people being worried
17 about wind turbines and human health, and one of
18 the main reasons was a lack of understanding, a
19 lack of information about that. Really, any
20 unknown or any change can be scary to people and
21 often is very scary to people.

22 And the key to that is
23 communication. The key to that is explaining and
24 involving people and in telling them the -- the
25 messaging that can help.

1 And at least with the wind turbine
2 information, as soon as people actually understood
3 what was out there and had their fears alleviated,
4 then they were much, much -- they were in a much
5 better place to be able to understand and deal with
6 things.

7 So I think communication is key to
8 helping people with scary and unknown situations.

9 MR. BURLINGAME: If I may follow
10 up then?

11 The actual studies, again, we've
12 not identified any. However, the anecdotal
13 evidence that we've heard even during these
14 hearings suggests that the psychological effect of
15 -- or perceived effect -- has been an avoidance of
16 people harvesting from the Churchill River. It's
17 something we've noticed. And I certainly share the
18 concern about the individual that they expressed in
19 the meeting in Sheshatshiu.

20 And I agree with Dr. Knopper, the
21 only thing that comes to mind right now is more
22 communication on the matter would be one form of
23 mitigation. But with respect to specific studies,
24 I'm not aware of any.

25 CHAIRPERSON GRIFFITHS: Thank you.

1 Yes, Jim Igloliorte?

2 MEMBER IGLOLIORTE: Thank you, Dr.
3 Knopper.

4 My name is Jim. I sit on the
5 panel.

6 My question just follows up from
7 the last points made by Dr. Griffiths and Mr.
8 Burlingame.

9 Essentially, on your Slide 19
10 under Future Steps, in the second bullet underneath
11 the points there, do you not think that there
12 should be another dash which has a line referred to
13 as "reporting back"? In the Inuit community and
14 our relationship with researchers, we request that
15 researchers bring back to the community any
16 information that they've received.

17 So I'd like a sense of what kind
18 of advice you'd give on those kinds of ethical
19 considerations following sampling and donors of
20 this kind?

21 DR. KNOPPER: I agree with you.
22 That information that's gathered from a community
23 should always be communicated back to the
24 community.

25 In terms of details about that, I

1 can let someone from Nalcor discuss the future
2 plans in more detail than I.

3 MR. G. BENNETT: Yeah, this is
4 Gilbert, Loren.

5 From my perspective that would be
6 automatic. If we collect information then,
7 fundamentally, we would report that back in -- I
8 think that's something that would have to be worked
9 out even before we started, you know.

10 How the outcome of the survey is
11 reported, you know, would be one of the fundamental
12 issues that we would resolve very quickly when we'd
13 established the protocol for the survey in the
14 first place whether it's a community or the
15 Aboriginal group that we're working with. I think
16 it would be automatic that that would be addressed
17 right from the get-go.

18 MEMBER IGLOLIORTE: Thank you.

19 And just one more very quick
20 question.

21 It relates the chart on Slide 14.
22 Just looking at the example of the Grassy Narrows
23 findings where the number is recorded as 198, was
24 there any work done to try and confirm that that
25 number was reflected in medical findings about the

1 effects of mercury? Was there any correlation
2 made?

3 DR. KNOPPER: In terms of Grassy
4 Narrows, I'm not a 100 percent sure about that.

5 I can try and address that in
6 response to the information from La Grande complex
7 if you'd like?

8 MEMBER IGLOLIORTE: Yes, please.

9 DR. KNOPPER: So in the La Grande
10 complex, Barbero et al in 1976 -- and this is cited
11 -- this study -- I couldn't actually find the study
12 itself, but it was cited in another paper by Schoen
13 and Robinson that was published in 2005 for the
14 Cree Board of Health and Social Services of James
15 Bay and they measured hair and blood of Cree and
16 Algonquin community members in 1975.

17 And they gave medical and
18 neurological exams to a number of people and
19 concluded that 30 percent of the Cree people that
20 they studied had some of the classic signs of
21 exposure to methylmercury. They had some sensory
22 distributions, they had tremors and coordination
23 problems.

24 Now, I don't know if that ties
25 directly to -- because it's a different study with

1 measurements made at different times, so it won't
2 tie directly to the 85.6 milligrams of mercury in
3 hair, but this study by Barbero did show that there
4 were some medical examples, medical symptoms, of
5 the mercury exposure from Cree in the area.

6 MEMBER JONG: Hello, Dr. Knopper,
7 it's Cathy Jong again.

8 Just a question around, I guess it
9 was Slide 17. You mentioned that when communicated
10 effectively, consumption advisories do decrease
11 mercury.

12 Dr. Doelle certainly brought up
13 the point about the temporal nature and whether or
14 not it was the mercury going down as well.

15 The other question I've got around
16 that I guess is, if the consumption advisories have
17 -- one of the things that may happen with
18 consumption advisories is the people will stop
19 eating country food period because they're worried
20 about it, and then of course the potential adverse
21 effect of that is that they are eating more store-
22 bought food and the rates of diabetes that are
23 already high in aboriginal communities climb even
24 higher. So it's a fine line between getting the
25 message across that you shouldn't eat too much fish

1 but that you should still continue to eat fish.

2 And do you know, in any of these
3 studies, whether or not that was looked at, like
4 whether the consumption advisories actually cause
5 people to stop eating fish completely?

6 DR. KNOPPER: That's an excellent
7 point. I know that that is an issue in some cases,
8 and we discussed some of that in our IR-82. I
9 don't have that at my fingertips right now, but a
10 lot of what you've asked is addressed in that IR.

11 MEMBER JONG: I'll have to go back
12 and look. I don't remember the contents of it.

13 Thank you.

14 DR. KNOPPER: You're very welcome.

15 CHAIRPERSON GRIFFITHS: All right.

16 That concludes, at this point, the
17 questions from the panel. I'd like to offer an
18 opportunity to ask questions to people present in
19 the room.

20 If you'd like to indicate, I see
21 Mr. Hendriks -- oh, I see lots of people. Let me
22 write this down. My memory won't work. My
23 colleague will help me here. Just a minute,
24 please.

25 CHAIRPERSON CLARKE: Mr. Hendriks.

1 CHAIRPERSON GRIFFITHS: Mr.
2 Hendriks, Mr. Davis, Mr. Sheldon, Ms. Benefiel, Ms.
3 Airhart, Mr. Marcocchio.

4 Have I named everybody who put
5 their hand up? I haven't missed anyone? Okay.
6 Mr. Hendriks.

7 --- QUESTIONS BY THE PUBLIC:

8 MR. HENDRIKS: Good morning.

9 Thank you for your very
10 informative presentation.

11 Just a bit more of a comment maybe
12 than a question. We did follow up -- Innu Nation
13 did follow up with the researchers who had
14 conducted the methylmercury study in Sheshatshiu in
15 2002, and obviously out of concern that was raised
16 by Ms. Rich concerning a potential relationship
17 between methylmercury exposure and cancer, and
18 certainly the researchers confirmed what Nalcor has
19 presented this morning, which is there really is no
20 evidence of any connection between those two
21 things.

22 But nonetheless, the various
23 agencies have listed methylmercury as a potential
24 carcinogen.

25 So I just wanted to confirm that

1 we had followed up on that.

2 The observation that the
3 researcher Sylvie de Grosbois from the University
4 of Quebec in Montreal made was that people -- there
5 were blood and hair samples taken at that time and
6 they were tested for not only methylmercury; they
7 were also tested for persistent organic pollutants,
8 some of which are carcinogens. And her observation
9 was that perhaps there was some misunderstanding at
10 that time about the relationship between different
11 chemicals and different outcomes, which is quite
12 conceivable.

13 And on that point, in terms of --
14 in conducting further human health studies in the
15 communities, Innu Nation has developed quite a
16 trusting relationship with that group of
17 researchers, and certainly the community's
18 preference would be to go to them first because of
19 the trusting relationship, in terms of doing any
20 further blood and hair sampling within the
21 community.

22 And there also became an issue
23 during this environmental assessment, which I know
24 Nalcor is familiar with. We tried to get the
25 sampling data from those researchers, and

1 unfortunately the relationship, the way that it was
2 set up in terms of the use and exchange of that
3 information was such that we didn't seek permission
4 from the participants to use that data for anything
5 else other than publishing of studies surrounding
6 that data. We didn't seek their permission to use
7 it for a hydro project, for example.

8 So that became a bit of a
9 complicating factor and would be another reason why
10 we would -- if we wanted to use that former data,
11 for example, to show a change over time perhaps,
12 we'd have to get that permission to do that. It's
13 another sort of incentive to go back to the same
14 researchers.

15 So it wasn't a question so much as
16 an observation. So thank you.

17 CHAIRPERSON GRIFFITHS: Mr.
18 Hendriks, are you asking Nalcor about whether they
19 would be open to that? That question would be
20 good.

21 MR. HENDRIKS: Yes, I guess my
22 question to Nalcor would be whether there is some
23 flexibility in terms of who actually carries out
24 the research?

25 MR. G. BENNETT: I think, Rick,

1 given the relationship we have with Innu Nation
2 consultation, the IBA process, I think that's
3 something that we would deal with between the two
4 of us.

5 At this point, to get into detail
6 about how we would plan to do that baseline survey
7 is probably a little bit premature.

8 But we'll certainly -- we need to
9 find a way to make that process work in a manner
10 that works for both of us.

11 So we're open to discuss this, but
12 I'm not sure we need to do it in this proceeding.

13 MR. HENDRIKS: No, fair enough,
14 and I wasn't planning to. I was just raising those
15 issues for the panel's benefit.

16 CHAIRPERSON GRIFFITHS: Thank you,
17 Mr. Hendriks.

18 Mr. Davis.

19 MR. DAVIS: Thank you. This is
20 Eldred Davis.

21 I guess one of the studies that
22 involved the hair sampling from the people of
23 Sheshatshiu, you mentioned something about a three-
24 month period? I think I missed that, but I wonder
25 if you could just further explain that?

1 DR. KNOPPER: Hi, Mr. Davis.

2 Sure.

3 From the Canuel study, they
4 collected hair samples from people from Abitibi,
5 146 different people, 130 different people from Lac
6 St. Pierre and 118 people from Sheshatshiu. And
7 the researcher said they collected the hair or the
8 hair that they measured, so the three-centimetre
9 hair section they measured corresponded to the time
10 period when these people were following a
11 traditional way of life in remote hunting and
12 fishing settlements, what they referred to as a
13 camp season.

14 MR. DAVIS: It seems that they
15 would have been away from the source of
16 methylmercury as currently exists in this river.
17 Would that be pertinent in the findings?

18 DR. KNOPPER: The Canuel study
19 didn't specify where people were eating. They were
20 just saying that they were not necessarily
21 consuming foods that were not part of the
22 traditional way of life.

23 MR. DAVIS: I understand, but it
24 seems to me that when people move away from their
25 community of Sheshatshiu, you generally go and eat

1 foods, country foods that are not taken from Lake
2 Melville, Goose Bay or Grand River; therefore, they
3 would be far less exposed to methylmercury.

4 So I expect that it may have some
5 bearing on the findings.

6 I'd like to ask another question.
7 The different species of fish that are consumed
8 regularly from this watershed would be brook trout,
9 (inaudible) and northern pike. You mentioned one
10 of your findings, what you had on one of your
11 slides was after consumption advisories, people
12 reduced their methylmercury intake.

13 I have to think that some of that
14 is because they switched to a different species of
15 fish. If people want to continue to consume fish
16 from this watershed, what species would you
17 recommend?

18 MR. TRIMPER: Jim McCarthy might
19 be able to help you a little better because he's
20 familiar with the species, but we are thinking we'd
21 be basically non-predatory -- non-piscivorous fish
22 species, correct? I think I heard you say that in
23 your presentation.

24 DR. KNOPPER: Yes, fish that don't
25 eat fish will have lower concentrations naturally

1 of methylmercury than fish that do eat fish.

2 You're correct.

3 MR. DAVIS: On a practical level,
4 would that mean eating sticklebacks and bottle
5 fish, suckers? You know, just show a little bit of
6 practicality here. What do you recommend or what
7 do the people of the La Grande areas eat in their
8 opportunities to avoid the more mercury-laden fish?

9 DR. KNOPPER: Mr. Davis, that's a
10 good point. In the Chevalier paper they didn't
11 necessarily mention which fish people switched to.
12 They just said they went from piscivorous fish
13 sometimes to non-piscivorous fish, but they didn't
14 mention what people were eating.

15 In the dietary unit system that I
16 talked about, we have information for the lake
17 trout, the northern pike, the lake whitefish, the
18 long-nose sucker, the white sucker, the brook trout
19 and ouananiche. And in terms of that, the fish
20 that has the lowest peak predicted mercury
21 concentration would be the ouananiche, one of the
22 non-piscivorous fish.

23 MR. DAVIS: Well, I don't know
24 about in the areas of the Cree territories of
25 Quebec, but I believe ouananiche in this area do

1 eat smaller fish, or at least at certain times of
2 the year.

3 However, I gather from what you're
4 saying is that basically the fish diet that people
5 have now will have to change completely if this
6 project goes ahead and the rivers is re-
7 contaminated with methylmercury.

8 Thank you.

9 CHAIRPERSON GRIFFITHS: Thank you,
10 Mr. Davis.

11 DR. KNOPPER: I'm sorry; may I
12 just add a comment to that?

13 CHAIRPERSON GRIFFITHS: Yes, go
14 ahead.

15 DR. KNOPPER: Okay, I don't
16 necessarily agree with you, Mr. Davis, with that
17 last point and I think Colleen Leeder -- not to put
18 you on the spot, Colleen -- but we have information
19 about sort of consumption of fish at the present
20 time and Colleen could maybe talk a little bit
21 about that.

22 MS. LEEDER: Yes, thanks. In
23 terms of -- yes, in terms of consumption advisories
24 and the dietary unit system that Dr. Knopper has
25 spoken about again there would be less cumulation

1 of mercury in the non-predatory fish species.

2 In terms of completely changing
3 your diet, that would depend on each individual and
4 what they're currently consuming. And I'm
5 wondering if this might tie into a question from
6 Ms. Jong earlier, about what has been found about
7 the effects of consumption advisories. Could I say
8 a few words?

9 Yeah, the evidence that we have in
10 terms of the affects of consumption advisories on
11 people, varies from, you know, some people haven't
12 understood or weren't aware of the consumption
13 advisories, to people understood the consumption
14 advisories but it didn't appear that their
15 consumption behaviour really changed, to they were
16 aware of consumption advisories and reduced their
17 consumption and sometimes that's fear-based and it
18 did change their patterns. And so being aware of
19 that was one of the reasons that Dr. Knopper looked
20 at this dietary unit system. And of course with
21 the consumption advisory there will be, by its
22 nature, the objective is to protect human health.

23 And so there would be -- the
24 objective would be to, in some cases, reduce
25 consumption levels. Again, depending on the

1 current level of any individual that you know
2 reduce those consumption levels to safe levels.
3 But having said that, it brings up again the
4 importance of the communication; the effect of
5 communication and what we've found again in the
6 literature that is largely dependent on engagement
7 of community members to not only communicate the
8 risk but also the benefits. And one of the ways --
9 one of the tools that we're looking at and are
10 proposing is this dietary unit system, and Dr.
11 Knopper can speak more articulately about that than
12 I. But it's essentially units or points are
13 assigned to each fish species in terms of allowable
14 -- you know, allowable intake. And also not only
15 eating for each fish species but for each of the
16 receptor groups, the subpopulations, so toddlers,
17 teenagers, women of childbearing age, and adults.

18 MEMBER JONG: I think it's a
19 really goodpoint that is being made about this
20 business of trying to make the information as
21 understandable as possible. But I'm wondering with
22 this unitary diet system -- if I've got the name
23 right -- how much math a person will have to do and
24 maybe Dr. Knopper can respond or somebody can
25 respond to that in terms of applying it to this is

1 what I've got on my plate and what does that add up
2 to?

3 MR. G. BENNETT: Right, we have
4 that conversation last night when we got into this
5 question and I'm saying to myself is there a
6 potential for this to be complex and, you know, is
7 it more effective to communicate the geographic
8 extent because certainly the same species in other
9 river systems there's not issue.

10 And we get into this discussion in
11 general; just for example Health Canada has
12 consumption advisory on swordfish and white tuna.
13 And from my perspective it's a simple decision, I
14 don't buy white tuna anymore and you know -- so it
15 really I think it is going to come to a very
16 individual, community by community, group by group
17 discussion to say, "Okay, well here are the
18 specific issues that we need to be concerned about
19 in this area, compared to those somewhere else."

20 And that's why if we look at, for
21 example, you know folks that do fish in the
22 Churchill River for example and they are very
23 specific species it may be most effective to
24 communicate that, you know, well maybe there are
25 other locations where you can catch and harvest and

1 consume the same species, which may be a very
2 different message for example that you might see
3 from folks who are using Goose Bay with different
4 species and different levels.

5 So those are all important factors
6 that we have to work through with each community
7 and with each individual.

8 MEMBER JONG: Yeah, and that's a
9 good point. I guess just another point. I did go
10 back to the IR-81 to have a look to see what was in
11 there. And the one thing that does stand out in
12 the survey of the Sheshatshiu, 118 participants is
13 that the range of meals eaten was anywhere from
14 zero to a whole lot of them. So we really don't
15 know, I think, how many of them are eating zero
16 because they're afraid of mercury versus zero
17 because they don't like fish. But it is like --
18 that is an ongoing challenge this issue of trying
19 to get the balance between a safe level without
20 sending people to store-bought food and higher
21 diabetes rates.

22 Thanks.

23 CHAIRPERSON GRIFFITHS: I'd like
24 to move on through the people who've asked a
25 question so we've got -- as always, we've got a

1 time constraint on us. And the particular time
2 constraint that I have is that at 10:45 we are
3 bringing in somebody to make a presentation by
4 telephone and we kind of have to observe those
5 times, so I'm going to have to juggle people I'm
6 afraid.

7 I will have to ask the LETP
8 presentation presenter to probably present a little
9 bit later. The most immediate thing that I think
10 we need to do is we need to take a break at half
11 past ten and then come back at quarter to for that
12 presentation by telephone.

13 I have Mr. Sheldon, Ms. Benefiel,
14 Ms. Airhart, Mr. Marcocchio. If I can't -- I am
15 going to finish at half past ten. At whatever
16 point we'll -- these are questions to the
17 Proponent, though I realize we have Dr. Knopper on
18 the phone so it's problematic about bringing it
19 back, but I don't know. I will -- we will figure
20 something but I'm just letting you know at half
21 past ten we will be taking a break. We'll get
22 through as many of these questions as possible.
23 And as succinct as you can be; that would really
24 help me. Thank you.

25 So Mr. Sheldon.

1 MR. SHELDON: Okay, first thing is
2 in terms of communication I think there are tons of
3 lessons learned out there. The Northern
4 Contaminants Program which is under INAC has been
5 operational for 25 years. They've gone through the
6 mistakes; they've done the lessons learned; they've
7 established best practices. It's for long-range
8 sources of contaminants but they've gone through
9 the experience of putting something out there with
10 all the regulatory agencies and then people
11 stopping to consume country foods.

12 So they have some really good best
13 practices, that's one of the reasons why we were
14 proposing through that ArticNet program to have
15 Nalcor plugged in because they're a partner in that
16 program. So it's a real holistic program in terms
17 of the communication.

18 So that's one thing as I think
19 there's very valuable lessons learned through the
20 Northern Contaminants Program.

21 The other thing is for the Inuit
22 health survey that was recently conducted in all of
23 the coastal communities, the Nunatsiavut coastal
24 communities. Basically their approach, they took
25 blood and hair from adults and only hair from

1 children. The one thing Kathy was saying about
2 what's recall like and how accurate is it? That's
3 one of the ways you can get around that, is because
4 of the blood you just do an immediate recall of the
5 past however -- I don't know the exact time frame
6 but it's within basically a day or so. And then
7 the hair you do the longer recall time frame. So
8 that is where you can kind of you them as
9 complimentary to one another.

10 We are specifically proposing
11 within the Upper Lake Melville area to have -- for
12 Inuit to have that international polar year
13 methodology completely repeated. It was a world-
14 class study; best across the Arctic that's ever
15 been done in any region in terms of health.

16 The other thing is it allows those
17 -- these issues to be placed in a more holistic
18 health context, so we are not just looking at
19 mercury in isolation, we're looking at mercury and
20 then things like diabetes, things like obesity;
21 those sorts of complex things. So that's one thing
22 that we'd like to happen.

23 Next thing ---

24 CHAIRPERSON GRIFFITHS: Sorry, Mr.

25 MR. SHELDON: It's a question now.

1 CHAIRPERSON GRIFFITHS: Oh it's a
2 question, great.

3 MR. SHELDON: I'm sorry. I wish
4 we had longer especially with Loren on the phone
5 because -- anyways.

6 DR. KNOPPER: Let's ---

7 MR. SHELDON: Pardon me?

8 DR. KNOPPER: You and I could talk
9 about this for days.

10 MR. SHELDON: Yes, I know.

11 Basically -- I know Loren from
12 previous.

13 Anyways, I want to get to the idea
14 -- Meinhard was asking a question about the
15 bioaccumulation, should you go back to zero if
16 there's no input source.

17 And in terms of cumulative
18 effects, one of the things that's been overlooked
19 somewhat here is the fact that in the background
20 already there's long range sources of contaminants
21 within everyone, within us, but especially in the
22 Arctic because it's a sink basically for these
23 contaminants.

24 So we see that and we've seen that
25 within the Inuit health survey, those results are

1 just coming out now.

2 We also see it within seals from
3 the Labrador coast. So, for example, in relation
4 to the Health Canada guideline, those seals are
5 already pushing up against the boundary of that
6 guideline in terms of meat. In terms of liver,
7 they're already much beyond it.

8 So one of the recent results that
9 came out of that -- and I'm not going to get into
10 the specifics, but basically was that 80 percent of
11 mercury for Inuit along the coast of Labrador comes
12 from country foods. Of that 90 percent comes from
13 ring seal, either the meat or the liver.

14 We know that ring seal also, from
15 other studies, specifically with respect to Saglek
16 and PCBs at Saglek that yes, some of them range
17 widely along the coast but some of them are also
18 sedentary. We've done telemetry studies.

19 We know that ring seals that are
20 harvested from Saglek or shot at Saglek do carry
21 that local PCB signal in their tissues. So they
22 have that long range and then also that local
23 range, even though they might not be staying there
24 for an extremely long period of time, which speaks
25 to even if seals are just in Lake Melville for a

1 little bit of time, they could be carrying that
2 signal.

3 So my question is given all of
4 that and that seals that are at an elevated trophic
5 level -- their stable nitrogen isotope ratios are
6 way elevated compared to any of the fish that we're
7 talking about, especially the fish within Lake
8 Melville. I just want to get Loren's thoughts on
9 particularly ring seal in terms of the potential
10 local source of contamination here with the
11 methylmercury and the bioaccumulation,
12 biomagnification of it and the additive effect of
13 it to the long range sources of methylmercury that
14 are already out there. And specifically thoughts
15 into -- given all of that we're still really
16 puzzled as to why it was not incorporated into the
17 risk assessment to begin with. We think the fact
18 that we're talking about this right now is it's
19 unfortunate.

20 So just Loren's thoughts I guess.

21 CHAIRPERSON GRIFFITHS: That was a
22 very, very long question, and I do appreciate that
23 you're giving us -- the information is interesting
24 and helpful but for other people -- please -- not
25 so well.

1 But, anyway, Dr. Knopper would you
2 like to respond to that question?

3 DR. KNOPPER: Sure.

4 Thank you, Tom.

5 I think two weeks ago when I was
6 there for the aquatic and the terrestrial sessions,
7 Nalcor had an undertaking to discuss that issue.
8 So that undertaking has been presented to the
9 panel.

10 But for details about that, I
11 don't know if this is a time to discuss the details
12 of it. I'd refer you back to Nalcor, either Perry
13 or maybe Gilbert. But that has been addressed in
14 an undertaking already.

15 MR. SHELDON: Okay.

16 I guess if that's the only answer
17 I'm going to get, I'd encourage the panel to also
18 look at that undertaking because -- that's all I'll
19 say.

20 CHAIRPERSON GRIFFITHS: Okay.

21 Thank you very much, Mr. Sheldon.

22 Ms. Benefiel, we've got five
23 minutes.

24 MS. BENEFIEL: I'll be quick.

25 Actually this is great because this is the slide I

1 was questioning and we're talking about cumulative
2 effects. I'm going to be splitting hairs okay.

3 So I looked at this slide back,
4 oh, ages ago. I think it ---

5 DR. KNOPPER: Which slide are you
6 looking at?

7 MS. BENEFIEL: Number 7, the one
8 right now.

9 DR. KNOPPER: Thank you.

10 MS. BENEFIEL: This one is in one
11 of the former studies.

12 I found this a little bit
13 misleading because I find that it starts at the
14 benthic organisms, goes up to the small fish, goes
15 to the large fish and then to the mammals and the
16 birds, and I find that the little fellow in the
17 boat who's doing the fishing ends up with same
18 number of dots.

19 And I said I was going to split
20 hairs, but it is a bit confusing and misleading.
21 That fellow will probably eat everything that's on
22 that screen. The cartoon is a little bit off. I
23 think he should have enough dots to completely
24 cover him and his boat actually. He's going to eat
25 the birds, he's going to eat the seals, he's going

1 to eat all of those fish most likely. So, like I
2 said, it's a hair splitting thing.

3 CHAIRPERSON GRIFFITHS: Thank you,
4 Ms. Benefiel.

5 I don't know if any response to
6 that.

7 Mr. Bennett?

8 MR. G. BENNETT: I think this is
9 meant to be diagrammatic. I mean, at the end of
10 the day, individuals have very different dietary
11 patterns. None of us eat fish everyday. None of
12 us eat -- we eat a variety of foods. And I think
13 to draw a conclusion as to what somebody's mercury
14 burden would be from this picture I think is -- it
15 would be very difficult.

16 What we're trying to do is show
17 the principle and not necessarily make a prediction
18 on somebody's methylmercury burden based on one
19 diagram. There's a lot of work done on this and I
20 think we can have a lot more discussion, but very
21 briefly on that point. I won't waste any more
22 time.

23 CHAIRPERSON GRIFFITHS: Okay. It
24 is almost half past 10.

25 Ms. Airhart, I have you down for a

1 question. Do you have a quick question?

2 MS. AIRHART: I do.

3 CHAIRPERSON GRIFFITHS: Oh, thank
4 you. Well, go ahead and then we'll ---

5 MS. AIRHART: Okay. I feel this
6 point has been a bit dismissed, but we're talking
7 about the mercury in fish here. I understand that.
8 But the people of this area eat a lot -- a wide
9 variety of country foods. And I think the whole
10 food chain is going to be affected and I think it's
11 too narrow for us just to look at the mercury
12 effects with regards to fish.

13 Thank you.

14 CHAIRPERSON GRIFFITHS: Did ---

15 MS. AIRHART: I'm wondering if
16 that could be addressed in any way?

17 CHAIRPERSON GRIFFITHS: Your
18 question is, is the assessment looking at the
19 effects at other trophic levels or the effects on
20 organisms at other levels on the food web or ---

21 MS. AIRHART: I think that the way
22 we're looking at mercury and contamination issues
23 is too narrow. We need to look at the whole food
24 web.

25 Thank you.

1 CHAIRPERSON GRIFFITHS: Thank you,
2 Ms. Airhart.

3 MR. Bennett?

4 MR. G. BENNETT: Loren, do you
5 have anything you want to add there?

6 I think you've explained the
7 mechanisms through which methylmercury accumulates
8 in the environment. But maybe very quickly if you
9 want to talk about the potential for that to happen
10 in other aspects of the food web, plants and other
11 animals. Maybe that might be helpful to put this
12 in context.

13 DR. KNOPPLE: Sure. Methylmercury
14 creation and movement up the food web is primarily
15 an aquatic issue. I have seen some studies of
16 songbirds that are not linked to the aquatic system
17 other than by eating insects that emerge from the
18 water being able to accumulate a little bit of
19 methylmercury. But their concentrations are always
20 lower.

21 And this is some work that Neil
22 Burgess authored. He was the Environment Canada
23 representative at the aquatic session a few weeks
24 ago with other colleagues.

25 And so by far the concentrations

1 found in aquatic receptors is where the
2 methylmercury is really going to be found.

3 In terrestrial organisms,
4 inorganic mercury is found -- you know, inorganic
5 mercury is found throughout the environment, but in
6 terms of methylmercury and methylmercury
7 transferred through organisms, it's mainly an
8 aquatic issue, not a terrestrial issue.

9 CHAIRPERSON GRIFFITHS: Thank you
10 for that response.

11 I think what we will do, we have
12 just one more -- and thank you, Ms. Airhart, for
13 your question.

14 We have Mr. Marcocchio. I think,
15 Mr. Marcocchio, I'm going to give -- we'll delay
16 Dr. Rudd by five minutes so we can still get the
17 break in.

18 So, Mr. Marcocchio, I'm going to
19 ask you -- I would like to be able to complete your
20 question and the answer in five minutes and then
21 we'll take a break if you -- better than putting
22 you off, and we've got Dr. Knopper on the phone.

23 MR. MARCOCCHIO: Thank you.

24 Perhaps you could bring up slide
25 12. I'll get there shortly.

1 Dr. Knopper, I would -- to begin
2 with there's uncertainty about the determination of
3 the appropriate level for methylmercury. The
4 allowable dose, the RFD, represents a subjective
5 policy decision as well as the scientific data.

6 To give some -- illuminate that
7 point, I wonder if perhaps you could inform us all
8 about how the permissible levels of mercury in,
9 let's say, Canada and the U.S. have changed over
10 the last 50 years?

11 DR. KNOPPER: How have they
12 changed over the last 50 years?

13 MR. MARCOCCHIO: Yes. Has the
14 reference level that you've referred to, the 10
15 been consistent for the last 50 years, 10 parts per
16 million?

17 DR. KNOPPER: I didn't say that
18 the 10-part per million has been consistent over
19 the last 50 years. I know that the value of 14 is
20 from the research that's come from information from
21 the Seychelles Islands and Faroe Islands in New
22 Zealand studies based on people exposed to mercury
23 in their seafood. And that value is based on --
24 the 14 is what -- is ---

25 MR. MARCOCCHIO: I'm sorry, I

1 don't mean to interrupt you, but we have very
2 limited time here.

3 I don't think you understood my
4 question. My question was have the permissible
5 levels of mercury changed over the last 50 years?
6 If you don't know, it's quite all right to tell us.

7 CHAIRPERSON GRIFFITHS: Mr.
8 Marcocchio, after all I've said, could you just
9 calm it down, please? Believe me, I will be on
10 people if we're really running out of time. Could
11 you just calm down and speak -- allow Dr. Knopper
12 -- by all means, clarify your question, but not in
13 that manner.

14 DR. KNOPPER: I believe they might
15 have changed over the last 50 years. The
16 acceptable level of mercury in hair was around 30
17 milligrams per kilogram in the past. It's now down
18 to the 10 to 14 mark, based on new information
19 that's come out of the global literature.

20 MR. MARCOCCHIO: Thank you very
21 much. That's helpful.

22 Now will you confirm that that
23 level in the U.S. is 5.8?

24 DR. KNOPPER: I'm sorry, Mr.
25 Marcocchio, I don't know what you're referring to

1 in terms of the reference or the number.

2 MR. MARCOCCHIO: The U.S. level --
3 permissible level is 5.8 milligrams per kilogram.

4 The point I'm getting to here is
5 that this is -- these levels are less about
6 defining permissible or safe levels than they are
7 about some sort of a political accommodation that
8 changes over time.

9 So apparently you're not aware of
10 the fact that the levels in the U.S. are not 10 but
11 5.8. I say that just to illustrate the fact that
12 this is a moving target.

13 I'm glad you've recalled that the
14 levels have gone down over the last 50 years. And
15 some of the latest research about methylmercury, if
16 I may, affects the development of the brain and the
17 central nervous system. It can affect nerve cell
18 migration in the foetal brain and it interferes
19 with nerve cell differentiation and the division,
20 preventing the development of normal brain function
21 even at low levels of pre-natal exposure. Subtle
22 symptoms of neuralgic effects have been seen,
23 including poor performance on neuro-behavioural
24 effects, particularly on tests of attention, fine
25 motor skills, fine motor function, language, visual

1 and spatial activities.

2 Methylmercury is also a possible
3 carcinogen and the continuous exposure at low
4 levels which can be found in the general population
5 is worth noting.

6 CHAIRPERSON GRIFFITHS: Mr.
7 Marcocchio, I am interested -- and I'm going to
8 interrupt you now because we are coming to the end
9 of the five minutes, but I am interested in your
10 question. I am interested in getting the -- I
11 think the panel would be interested in getting the
12 reference with respect to the U.S. information.
13 I'm still not quite sure what it is.

14 So either would you be able to
15 provide that to the panel?

16 MR. MARCOCCHIO: I think ---

17 CHAIRPERSON GRIFFITHS: Or shall I
18 ask Nalcor if -- do you understand ---

19 MR. G. BENNETT: Well, if there's
20 new information that Mr. Marcocchio has, I think it
21 would be helpful if he could just give us a
22 reference.

23 MR. MARCOCCHIO: I think Mr.
24 Knopper may be able to put some light on this.

25 You know, the reference level in

1 the U.S. is 5.8, Mr. Knopper. Is that not correct?

2 DR. KNOPPER: I'm not aware of
3 that number, Mr. Marcocchio. I know that they have
4 a provisional tolerable daily intake that is a
5 different number than what you're citing. So I'm
6 not sure what you're referring to.

7 MR. MARCOCCHIO: That's the
8 tolerable daily intake. I think that's .1
9 milligrams per kilogram per day.

10 But in any case, the point I was
11 trying to get to ---

12 CHAIRPERSON GRIFFITHS: I'm ---

13 MR. MARCOCCHIO: I'm almost there,
14 Madam Chair.

15 CHAIRPERSON GRIFFITHS: Well, that
16 ---

17 MR. MARCOCCHIO: It is likely that
18 the carcinogenic and neuro-toxic effect have no low
19 dose threshold. It suggests that there is no safe
20 level of mercury exposure.

21 That's why I find your first
22 comment that the Chair has commented on here on
23 Slide 12 that there is no measurable effects in
24 pregnant women, nursing women and young children is
25 more than misleading; it's downright wrong and

1 dangerous.

2 I hate to think that you have
3 missed in understanding these subtle effects and
4 that there is no low-dose threshold below which
5 there is not a measurable effect on the things that
6 I've outlined here.

7 CHAIRPERSON GRIFFITHS: I think
8 that's good. I think you've made your point.

9 I am going to ask -- I'm going to
10 turn to Nalcor, I think. And ask you if you can
11 indicate to the panel whether the Health Canada
12 levels regarding safe exposure, whether that
13 differs than the U.S. and would you be able to
14 provide us with some information about that?

15 MR. G. BENNETT: We'll take it
16 away and confirm ---

17 CHAIRPERSON GRIFFITHS: As an
18 undertaking?

19 MR. G. BENNETT: Yes, sure, that's
20 fine.

21 CHAIRPERSON GRIFFITHS: Thank you.
22 Thank you very much, Mr.

23 Marcocchio.

24 We have to break now.

25 I'm going to thank Nalcor for

1 their presentation, Dr. Knopper for joining us on
2 the telephone.

3 We are going to come back at just
4 after 10 to 11:00. And then we will have to go to
5 the presentation by Murray Rudd. And I ask the
6 indulgence of the other presenters this morning.
7 And we'll fit you in.

8 Okay.

9 Thank you very much.

10 DR. KNOPPER: Thank you.

11 --- Upon recessing at 10:39 a.m.

12 --- Upon resuming at 10:53 a.m.

13 CHAIRPERSON GRIFFITHS: Ladies and
14 gentlemen, we're going to resume this session.

15 And I believe that we have Dr.
16 Rudd on the telephone.

17 Is that correct?

18 DR. RUDD: Yes, thanks. I'm here.

19 CHAIRPERSON GRIFFITHS: Okay.

20 Just a moment; I think people are coming back in.

21 Just to indicate what we're going
22 to do with the agenda today, Keith Jake for the
23 LATP has agreed to move his presentation.

24 So what we will do -- I'm very
25 grateful for that, for the flexibility -- we will

1 go through Mr. Rudd's presentation -- Dr. Rudd's
2 presentation and the questioning.

3 We will move directly on to Jill
4 Airhart's presentation from the Food Security
5 Network. And we will -- if we have enough time, we
6 will start with the LATP presentation and the
7 presenter is able and willing to return after lunch
8 for the question period if that is necessary.

9 But we still have quite a few
10 presenters to fit in.

11 So I would just -- before I --
12 we're very pleased that Dr. Rudd can join us by
13 telephone. I know it can be a little challenging
14 to be involved this way, but at this end we're
15 getting some practice in this, so it should work
16 well.

17 I just want to remind Dr. Rudd
18 that it is -- I know he has a detailed presentation
19 with a lot of words on the slides, but this is --
20 there has been 15 minutes allotted for this
21 presentation, so if you could bear that in mind.

22 Now, Ms. Benefiel, did you want to
23 -- I know -- do you want to say something in
24 introduction? Why don't you introduce Dr. Rudd and
25 then we'll move into his presentation?

1 MS. BENEFIEL: Hello, Dr. Rudd.
2 How are you?

3 DR. RUDD: Fine, thanks. How are
4 you?

5 MS. BENEFIEL: Just great.

6 Dr. Rudd is a lecturer in
7 environmental economics at the University of York
8 in the United Kingdom and he's got his background
9 information on the second slide. So we'll continue
10 on from there.

11 --- PRESENTATION FROM GRAND RIVERKEEPER LABRADOR BY
12 DR. MURRAY RUDD:

13 DR. RUDD: Okay. Thanks, Roberta.
14 And you'll be advancing the slides?

15 MS. BENEFIEL: Yes, I will.

16 DR. RUDD: Thank you.

17 Okay. Thanks very much for having
18 me by teleconference. I had planned to be in Happy
19 Valley-Goose Bay for this, and I had some family
20 matters that came up that changed around travel
21 schedules, so I'm really grateful that I can do
22 this by telephone.

23 As you mentioned, there's a lot of
24 material on the slides. And what I would like to
25 do is skim over quite a bit of it fairly quickly.

1 There's a few key points that I
2 would like to make along the way.

3 So Roberta, if you could advance
4 to page 2, briefly.

5 My background might sound strange,
6 spent time in the U.K. and I'm interested and
7 involved in this but I was Canada Research Chair in
8 Ecological Economics at Memorial University at the
9 Cornerbrook campus so I was in Newfoundland for
10 three and a half years working prior to coming to
11 York.

12 Just add that I've been quite
13 involved with a variety of review work the last
14 while and I have worked for the federal government
15 in Canada as a senior economist with Policy Branch,
16 DFO for four and a half years.

17 Okay, Slide 3 please -- sorry,
18 Slide 2.

19 So what I'd like to do today, I'm
20 drawing largely on a report that myself and Najem
21 Raheem had submitted in 2009. We highlighted a
22 number of issues on the economics -- the
23 environmental economics of the original EIS. And
24 what I'd like to do, most of the points that I am
25 raising are dealt with in more detail in that

1 report.

2 I have included quite a few
3 references with this presentation, they are hyper-
4 linked. Just a caveat though, that some of the
5 journal articles are going to be for subscribers
6 only but I tried to put in as much information,
7 links to information for the panel as I could so
8 you can reference it as needed later on.

9 Next slide please, Slide 3.

10 So what I'm going to do first is
11 just go over a few things, looking at
12 sustainability and we'll take a look at project
13 rationale and justification and some of the
14 economic analysis procedures and then eventually
15 ecosystem services and uncertainty.

16 What I'm going to do is just briefly
17 highlight what the Nalcor perspective in the
18 documentation has been and then look at some
19 alternative perspectives of how we can look at that
20 from an environmental economics perspective, in
21 particular, we have some shortcomings.

22 So Slide 3; the project rationale
23 and justification. Maybe we could just go straight
24 to number 4.

25 I think that the key point that

1 I'd like to make is that with the project rationale
2 and justification, from an economics perspective if
3 we're looking at economic benefits that does not
4 necessarily equate to revenue generation. There's
5 been quite a focus in the EIS and also in the
6 materials that's been presented so far about the
7 revenue that's been -- or the revenue that would be
8 pumped into local business and economy.

9 From an efficiency perspective,
10 from an economics benefits perspective that's not
11 the way that we would normally look at things in
12 the economics discipline; we need to look at the
13 net benefits, the net results.

14 And in general what we found here
15 -- what I found here is that we're very, very
16 sparse on any sort of details on what the actual
17 economic benefits are.

18 So there's some caveats or there's
19 some things there that we need to keep an eye on.

20 Slide 5, please, Roberta.

21 We've had, of course, over the
22 course of the project there's been some plans
23 changed with regards to transmission of
24 electricity, possibly also the dam, having one or
25 both of them go ahead.

1 If we have a profit-oriented
2 perspective -- we aren't sure what the transmission
3 lines are going to cost but ultimately there has to
4 be some sort of market price and there has to be a
5 market return for the electricity that's sold out
6 of the dam.

7 We really -- we're left with
8 looking at the EIS documentation that the Lower
9 Churchill project really was a profit-oriented
10 business proposition more than anything. The
11 rationale for supplying the island, that's been
12 discussed a lot at the hearings already, so I'm not
13 going to touch on that.

14 What we don't have is the
15 financial plans to really make a sophisticated
16 analysis of what the profitability of the project
17 is going to be. It's really absent. We don't know
18 the cost of transmission and there are some market
19 price risks that really aren't addressed.

20 I think the other point I would
21 like to make here is that there's a lot of public
22 money, potentially, going into this project.

23 And as we go to a commercial
24 project most things in environmental assessment we
25 need a sewage plant -- well, we need a sewage

1 plant, you know, how do we do the most cost-
2 effective and the least environmental damaging one
3 that we can.

4 When we start looking at
5 generating financial returns as a primary objective
6 of a project, we really should start to look out
7 broader at opportunity costs.

8 Public money can be used in many
9 different ways and how should that be used.
10 There's an opportunity cost for investing heavily
11 in the Lower Churchill project, that money could be
12 used on education or health care or other things.

13 These are all things that aren't
14 clear, they haven't been clearly dealt with in the
15 economic planning so far but they really need to be
16 considered to make a sound decision.

17 Slide 6, please.

18 On the market side we have a
19 couple of things going on. We have some fairly
20 simple projections with regard to pricing and
21 demand and we really don't have any sort of
22 information about substitution effects and how
23 Newfoundland energy might fit into a bigger energy
24 picture out in the marketplace, the North American
25 marketplace.

1 Slide 7.

2 Without going into any detail
3 here, I think there's two key points; one is on the
4 demand side of the equation there's a question as
5 to whether electricity will remain a pure commodity
6 out in the market. And by that I mean once it goes
7 into the grid is it just electricity that gets sold
8 off.

9 We've seen moves in all sorts of
10 other traditional commodities, especially food
11 stuffs, coffee, sugar, timber, to different sorts
12 of labelling situations.

13 And the production processes and
14 practices actually have market value. So when you
15 go out and get a fair trade label, for instance,
16 you're paying for something in the production
17 process. You're paying a premium for that.

18 And what we may be seeing is that
19 we may be seeing electricity differentiated once we
20 get into consumer markets where we have smart grids
21 and other tools. There may be ways for people to
22 say, "Oh, I want this electricity and not another
23 type of electricity."

24 On the supply side there's been a
25 lot made out of greenhouse gas emissions from the

1 project. I think the key point there is that we
2 don't really have a full understanding of what the
3 electricity from Lower Churchill would displace out
4 of the marketplace.

5 Nalcor has made the point that it
6 would displace, essentially, 100 percent of coal-
7 fired emissions out of the market. Well, coal-
8 fired plants aren't the expensive producer out in
9 the marketplace. So how electricity may displace
10 other sources of electricity generation, that
11 really depends on cost structure in the marketplace
12 and none of that's dealt with in the financial
13 plans.

14 So there's some real complexities
15 out there, both on the demand side and on the
16 supply side that aren't dealt with and that's the
17 main thing I'd like to bring forward there.

18 Next slide, please, Slide 8.

19 Nalcor's perspective is that
20 they've commissioned economic impact analysis and
21 that the project will supply durable economic
22 benefits.

23 If we move on to Slide 9.

24 This is a fairly involved issue.
25 The key thing here is that economic impact analysis

1 is typically used to look at the local economic
2 activity -- changes in economic activity, that's
3 not the same as economic benefits.

4 When we look at economic benefits
5 we're wanting to get at what are the net benefits
6 of the project and the net costs of the project to
7 whoever they accrue to.

8 And that has some fairly important
9 implications. You can have a \$1 billion project
10 that pumps a billion dollars into an economy but it
11 might actually cost 1.1 billion to do that and of
12 course from an economic efficiency perspective
13 that's a bad thing. From an economic impact
14 perspective that's a good thing.

15 So there needs to be some clarity
16 on economic benefits versus economic impacts and
17 revenues versus profitability of projects.

18 Slide 10.

19 What we have right now in the EIS
20 documentation, some of the other documentation
21 we've seen come out is that we really have no way
22 to assess what the economic viability, what the
23 economic benefits of the project are and we just
24 can't do that without a cost benefit analysis.

25 Once a cost benefit analysis is

1 done the net economic benefits are understood then
2 we can go on to supplementary economic impact
3 analysis that tell us how -- you know, who wins and
4 who loses with a particular development, where the
5 distributional impacts are.

6 I would also add in here that we
7 would probably want to see that done with a
8 methodology called computable general equilibrium
9 modelling rather than this fairly simple IO
10 modelling or input/output modelling that's being done
11 right now because Lower Churchill is a very
12 substantial portion of the Labrador economy and the
13 Newfoundland economy that would have presumably
14 general effects.

15 Okay. Slide 11.

16 What we haven't seen in the
17 preliminary documentation is we've looked at the
18 value of environmental components, the ECs, but we
19 haven't had any sort of economic value attached to
20 those.

21 Go to slide 12.

22 What we're seeing internationally
23 right now is a very, very heavy move to this
24 concept of ecosystem service and ecosystem service
25 valuation.

1 Ecosystem service is sort of a
2 jargony way of saying it's just the aspects of
3 ecosystems that people use to produce human
4 wellbeing. And we've seen an inter-governmental
5 platform on biodiversity in ecosystem services
6 that's just been formed right now.

7 We've seen a number of very, very
8 high profile reports, the Millennium Ecosystem
9 Valuation Reports that have come out that have
10 taken an ecosystem service valuation.

11 And the key thing here, there's
12 that third bullet point, Heale -- Jeff Heale did a
13 National Research Council report down in the U.S.;
14 failure to include some measure of the value of
15 ecosystem services and benefit cost implicitly
16 assigns them a value of zero.

17 And what we don't -- what's not
18 correct from an economic perspective is to change
19 the flows of ecosystem services without actually
20 accounting for the economic value of those changes.

21 So Slide 13 is mainly just
22 background on some of the work that's been done on
23 large river ecosystem services. There's about 20
24 that would usually be considered in a full
25 analysis.

1 And I think the point here is that
2 this is relatively -- you know, it's relatively
3 complex. It's not a simple matter to do this, but
4 the valuation methods are out there. The ecosystem
5 service accounting methods are out there.

6 This is a field that's progressed
7 tremendously over the past 10 years and that we can
8 actually go in and get a fairly good value on a lot
9 of ecosystem services. And those values then are
10 one component that feed in to the larger cost-
11 benefit analysis, so they're not exclusively what
12 we'd look at, of course, but what they do is they
13 feed into the cost-benefit analysis. And if
14 they're substantial, sometimes that can sort of tip
15 the cost-benefit balance one way or the other.

16 Slide 14.

17 Actually, I think I'll skip right
18 over this. This is just some background from more
19 on cost benefit and looking at different ecosystem
20 services and what natural or semi-natural versus
21 recovered, actually, or rehabilitated might be.

22 Slide 15.

23 Nalcor's perspective on whose
24 values count in the economic analysis has been
25 quite restrictive on the cost side, basically

1 limited to the geographic area up in Labrador.

2 On the other hand, there's been
3 some fairly heavy promotion of greenhouse gas
4 emission reduction which is really a global
5 benefit.

6 If we move to Slide 16, whose
7 values count.

8 The way that we look at this when
9 we're doing environmental economics right now and
10 considering ecosystem services is that ---

11 CHAIRPERSON GRIFFITHS: Excuse me,
12 Dr. Rudd. Can you hear me?

13 DR. RUDD: Yes.

14 CHAIRPERSON GRIFFITHS: Oh, sorry
15 to interrupt you, but I think there's a bit of
16 confusion here.

17 We're looking at a -- when you're
18 giving numbers for pages of slides and then you
19 speak it doesn't seem to match up, so I think you
20 may need to actually tell what is at the top of
21 each slide, the words at -- the title of each
22 slide.

23 And I would also just mention that
24 -- well, I'll give you another five minutes.

25 So if you could do that so that we

1 can make sure we're looking at the right material.

2 DR. RUDD: Okay. Whose values
3 count? Yeah. It's -- I've got my slides numbered
4 down at the bottom. It's blacked out, so I had
5 them written up at the top. I must have written
6 them down a bit.

7 Whose values count? The second
8 slide on "Whose values count?" I'm showing page
9 17.

10 CHAIRPERSON GRIFFITHS: Yeah,
11 that's fine. So please go ahead.

12 DR. RUDD: Okay. When we're
13 dealing with ecosystem services, we have --
14 benefits are produced in one area, so in this case
15 it would be the Lower Churchill River Valley. And
16 the beneficiaries of those ecosystem services can
17 either be in the local area or they can be in other
18 areas.

19 And one study we did on Atlantic
20 Canadian aquatic species at risk of very localized
21 species in the Maritimes, those species -- people
22 in the prairies and British Columbia actually held
23 positive values for them. So if there was changes
24 in those populations for those particular animals,
25 that had financial -- that had economic

1 implications for people across Canada.

2 And I think it's highly probable
3 that -- with this project that, you know, there
4 will be non-zero costs involved for changes in
5 ecosystem services.

6 This is mainly an empirical
7 matter. It's mainly a matter that needs to go out
8 and be -- you know, there needs to be some field
9 work done on it.

10 Okay, next slide, Treatment of
11 Uncertainty.

12 The Proponent has said that
13 they've made accurate, albeit conservative,
14 predictions regarding interactions.

15 If we move to the following slide,
16 the second on the treatment of uncertainty, I think
17 -- you know, I mean, the scientific perspective is
18 that it's extremely hard to predict anything. And
19 this is a big project with many uncertainties and
20 risks.

21 The way that we would typically
22 deal with uncertainty in projections and in
23 analyses would be to go to some sort of expected
24 utility or expected value estimates and/or a Monte
25 Carlo simulation so we're drawing many -- we're

1 using different probability distributions for
2 different components to try to come up with what
3 are the most likely scenarios.

4 That hasn't been done in the EIS
5 material.

6 If we go to the next slide, the
7 third on the treatment of uncertainty, the
8 recommendations. My personal recommendation would
9 be to go to something that's broader, that we get
10 to -- we would look at some sort of simulations
11 that look at should an investment be made in
12 capital-intensive infrastructure versus
13 conservation measures and what happens when we go
14 out and factor in marketplace fluctuations.

15 And what these broader analyses
16 can do, can actually suggest that certain
17 investment strategies may be appropriate given our
18 -- we have firm beliefs or firm conviction about
19 certain underlying assumptions.

20 Again, relatively complicated, but
21 it can be done and it probably would be a good idea
22 to do it.

23 Next slide, sustainability.
24 Actually, we can go up to the second slide on
25 sustainability. And what I would just highlight

1 here from an economic perspective, we have what we
2 would call strong sustainability, no loss of
3 natural capital. And that's clearly not the case
4 with this type of project.

5 Our other type of sustainabilities
6 that we look at is weak sustainability, so we have
7 no net loss of capital assets and that would be
8 spread across both environmental, human, social,
9 financial in the broadest terms.

10 And we don't have the information
11 here to make any sort of informed judgment about
12 the sustainability of this project, and so I can't
13 come in and I can't say, "Well, it's not
14 sustainable from a weak sustainability
15 perspective," but we certainly -- we just have
16 absolutely no way to assess it because we don't
17 know what the net profitability of the operation is
18 going to be.

19 We haven't -- we don't have a
20 valuation of the environmental effects and we don't
21 have an environmental value also of the cultural
22 effects that we could be experiencing.

23 So to go to Concluding Comments.
24 I'm sorry for the speed of going through this.

25 It's imperative that economic

1 efficiency be assessed in a large project like
2 this.

3 We can account for local impacts
4 and regional impacts, but we really do need a full
5 accounting of efficiency. That full accounting
6 should include the non-market benefits arising from
7 changes in ecosystem services due to flooding and
8 inundation.

9 So when I look at this, I think
10 for a huge project like this it's an incredibly
11 weak economic rationale with it. And it may be
12 strong; it may be weak. We just do not see -- I
13 don't see the information here to make an informed
14 judgment.

15 And given that there's been two
16 years since our initial comments went in and
17 nothing has really been addressed, I guess that's
18 the main disappointment is that we have a Proponent
19 that has gone forward with this just thinking that
20 the economic impact information is enough.

21 And I'd submit here that that
22 really isn't enough; that we need more to make a
23 good decision on this and what the economics truly
24 are.

25 And I will leave it at that.

1 CHAIRPERSON GRIFFITHS: Well,
2 thank you very much, Dr. Rudd, and thank you for
3 going through what was obviously originally meant
4 to be a longer and very complex presentation and
5 making sure that it more or less fit the time
6 available. So I really appreciate that.

7 So the process now is that I will
8 ask for questions from my panel colleagues. I will
9 then ask for questions from the Proponent and then
10 some questions from the rest of the people here in
11 the hearings room.

12 So, first of all, questions from
13 the panel. Who would like to go first?

14 Actually, we don't have questions
15 from the panel. I think there's interest in
16 hearing questions from other people with respect to
17 this.

18 So I'm going to turn to the
19 Proponent. Mr. Bennett, are there some questions
20 from the Proponent?

21 MR. G. BENNETT: Thank you, Madam
22 Co-Chair.

23 --- QUESTIONS FROM THE PROPONENT:

24 MR. G. BENNETT: Dr. Rudd, I'm
25 Gilbert Bennett. I'm the Vice-President for the

1 project with Nalcor.

2 I just want to talk a little bit
3 about the cost-benefit analysis. I guess one
4 question that comes to mind is where is that in the
5 EA guidelines that we've been granted or given for
6 the project?

7 DR. RUDD: It is not in the EA
8 guidelines, and that's one of the problems with
9 environmental assessment, obviously, that it isn't
10 in there.

11 I think that there's a broader
12 principle at work here. I think, first of all,
13 from a Canadian government perspective, if you look
14 to Treasury Board guidelines and even though
15 technically you're not required to follow those
16 because it's not a regulatory change, best practice
17 in economics is to use cost-benefit analysis. So
18 it's used in all government regulatory changes.

19 If you look world-wide, cost-
20 benefit analysis is the standard that's used to
21 judge economic -- the economic benefits of
22 projects.

23 And if it's not required, I mean,
24 we're still looking at investments of public money
25 here, and even if it's not technically required,

1 there's a pretty strong argument to be made that it
2 should be done anyway, and then the second stage of
3 cost-benefit analysis, the local impacts can be
4 examined beside it.

5 So not required, but certainly not
6 in accordance with the best economic practices for
7 economic assessment of large projects.

8 MR. G. BENNETT: I guess in the
9 context of where we are in this environmental
10 assessment, we do have to comply with the
11 guidelines, and what we've done is what's required
12 by law and it's what every other major project
13 requires.

14 I think the broader discussion
15 about how Canada might change its environmental
16 assessment law, I think that's something that's
17 well beyond where we are today.

18 Maybe the next point, it's in your
19 presentation. I don't know if you talked about it,
20 but there was a claim that people are better off
21 because of recreational opportunities. I don't
22 think we said that in the EA, but if you can point
23 me to that, that would be helpful.

24 DR. RUDD: I don't have the page
25 number right now, but if you back into the original

1 project that I had -- or the original submission
2 that I had put in in 2009, I believe the quotes and
3 the page numbers are in that. It was certainly
4 quite explicit that there was -- flooding would not
5 impact the services provided, and the implication
6 in that was that the post-flooded situation would
7 be -- provide a higher level of benefits than the
8 pre-flood.

9 MR. G. BENNETT: Just to clarify
10 ---

11 DR. RUDD: And I don't have the
12 page numbers off the top of my head, but I would
13 encourage you -- the document -- the original
14 submission was there and I can certainly track that
15 down and email that through, send it to the panel
16 if that's needed.

17 MR. G. BENNETT: Just to clarify,
18 we did look it up and all we said there was it was
19 an opportunity. It wasn't an assertion that people
20 were going to be better off.

21 Let's talk about sustainability
22 for a second. Just give us, if you could, the
23 definition from the *Canadian Environmental*
24 *Assessment Act* that talks about what sustainable
25 development is.

1 DR. RUDD: Sorry, I don't have
2 those with me right now.

3 MR. G. BENNETT: Right. I think
4 the point I was making is that we have the Act and
5 it has a different definition of sustainability
6 than you had on your slides.

7 So again, in terms of our
8 compliance with the applicable legislation, what
9 we're pointing to is what we have to do under the
10 Act.

11 DR. RUDD: Yes, and again, my
12 position as an economist looking at this, there are
13 certain things that you're required to do under the
14 Act, but is that best practice? And if we're
15 looking at actual -- looking at value for money or
16 if we're looking at economic benefits, is that
17 something that is brought forward under the Act?

18 And yes, obviously there are
19 shortcomings with the Act and what's required. It
20 is possible to comply with the requirements of the
21 Act and still not consider what is currently best
22 practice within the sustainability field.

23 So when we're talking -- and
24 again, I had specified from an economic
25 perspective, the way that we look at sustainability

1 -- this weak sustainability perspective in
2 particular is that we look at the tradeoffs between
3 the different capital assets.

4 So there's a certain willingness
5 or there's a certain capacity from an economic
6 perspective to say that, "Look, we're going to
7 generate a lot of money on this that can be used
8 later on for other things and we are going to see
9 some sort of degradation in environmental quality.
10 If we can put an economic value on that, we can
11 just assess how we're going up and down. If there
12 are health impacts, we can assess how we're going
13 up and down."

14 So what I'm trying to bring to
15 this panel today is not so much what the EA
16 guidelines particularly say. What I'm trying to
17 bring forward is what best practices in economics
18 are.

19 And what best practices are in
20 economics is not within the EA guidelines
21 unfortunately, and that's probably something that
22 is going to have to be changed over the longer term
23 or accounted for.

24 But even given that, there was one
25 project in Manitoba where cost benefit was factored

1 in.

2 So not required, but I think it
3 would be transparent to be providing cost benefit
4 assessment information and then to also meet the
5 requirements of the EA process in using that.

6 It seems to me that you can have
7 one -- cost benefit could be certainly used to meet
8 the EA assessments, but the EA assessments
9 themselves certainly don't measure up to what
10 current best practices in economics are.

11 MR. G. BENNETT: I won't dispute
12 that it could be, but I think the point that I'm
13 trying to get to is that when we look at the
14 guidelines, the terms of reference that we have for
15 this environmental assessment, there's a discussion
16 about significance, and the economic benefits that
17 arise.

18 So our assessment unfortunately is
19 not lined up with the thinking you have.

20 Just one final point, if we look
21 at our response to JRP-146 and some of the other
22 work that we talk about, our risk assessment and
23 our considerations there, did you have an
24 opportunity to read that? I think on its face,
25 that would not be aligned with your assertion that

1 we gave no consideration to questions of risk in
2 our analysis in terms of our own financial analysis
3 and our planning for the project.

4 So just very quickly, did you have
5 a chance to look at that information?

6 DR. RUDD: No, I was basing it on
7 the information that had been provided publicly
8 earlier on.

9 MR. G. BENNETT: That information
10 was provided publicly earlier on. It's been
11 submitted in one of the information request rounds.

12 I think at that point that's about
13 all the questions that I have. So thanks so much.

14 CHAIRPERSON GRIFFITHS: Thank you
15 very much, Mr. Bennett, for those questions.

16 It's Lesley Griffiths again back
17 on the panel, Dr. Rudd.

18 --- QUESTIONS BY THE PANEL:

19 CHAIRPERSON GRIFFITHS: I guess I
20 do have a question.

21 Your reference to best practice, I
22 mean, Mr. Bennett, his response is that the
23 requirements of the Canadian environmental
24 assessment process don't require the application of
25 some of the tools that you're talking about.

1 I am interested to know if there
2 are other jurisdictions that have actually
3 instituted these kinds of analyses as an integral
4 part of environmental assessment?

5 DR. RUDD: There has been cost-
6 benefit analysis done in numerous jurisdictions and
7 it depends on where you go. There can be sometimes
8 requirements that aren't met, obviously.

9 There was -- if we look down, of
10 course, to the U.S. there's a lot of cost-benefit
11 analysis. Right now it's being done on actually a
12 dam decommissioning down there.

13 We've seen cost-benefit analyses
14 done regularly now in China, although I think
15 technically in China it is a requirement but often
16 it's not done, and again, with the Chinese
17 legislation and how things are changing over there
18 it's hard to say what exactly the status is right
19 now.

20 What we are seeing with the
21 Intergovernmental Panel on Biodiversity and
22 Ecosystem Services we're going to be seeing a lot
23 more of a move in the direction of doing accounting
24 that takes ecosystem service change into account.

25 Here in the U.K. the government

1 has actually been pushing the economics and the
2 academic groups to try to move forward faster with
3 ecosystem service evaluation and it's being
4 incorporated into virtually all environmental
5 decision making from different government
6 departments here right now.

7 But again, the sort of -- there's
8 a difference -- in most jurisdictions there's a
9 difference between what is legally required and
10 what best practices are, and some of that relates
11 to what's happened with best practices.

12 Most of the environmental
13 evaluation work was really kicked off by the Exxon
14 Valdez oil spill and it was a litigation driven
15 advances in the U.S. that really got the field
16 moving.

17 So what we saw early on was a lot
18 of litigation oriented work and what we've seen is
19 that as the expertise pool built in the U.S. that
20 the ideas that were largely developed in the U.S.
21 has spilled out into the U.K., to a lesser extent
22 into Canada. Australia is doing a lot of this work
23 right now. A lot of this work is being done in
24 China right now.

25 So we're seeing probably practices

1 ahead of legislation and requirements, but again,
2 it's -- a lot of governments -- certain
3 governments, the U.K., are certainly ahead of where
4 we are in Canada.

5 I think the other thing to mention
6 in Canada with respect to the EIS guidelines and
7 the Treasury Board guidelines, Treasury Board is
8 very, very explicit about looking for a cost-
9 benefit analysis and benefits for Canadians in
10 federal projects, and the Treasury Board guidelines
11 do recognize, and they have recognized back to
12 1998, that ecosystem services have values. They
13 might be non-market, they might not be quantified
14 but they should be recognized.

15 So there's Canadian precedent at
16 the federal level and Canadian recognition.

17 Certainly when I was working for
18 DFO and we were doing *Species at Risk Act*
19 assessments we were considering non-market values
20 there when the information was available.

21 CHAIRPERSON GRIFFITHS: Thank you
22 very much, Dr. Rudd. That is helpful.

23 I've got Mr. Clarke on the panel
24 also has a question.

25 CHAIRPERSON CLARKE: Thank you,

1 Dr. Rudd, for your presentation.

2 My name is Herb Clarke. I'm a
3 panel Member.

4 I was just wondering if you would
5 comment on the quality of the data that normally
6 would be available on a project at this stage of
7 the environmental assessment and how that would
8 influence the type of analysis that you would
9 suggest being done.

10 I realize that in certain areas in
11 your presentation you talked that it would be
12 necessary to do models and Monte Carlo simulations,
13 and I know in some areas you would have specific
14 data and in other areas you would have estimates,
15 et cetera.

16 So if you'd just comment on the
17 kind of quality of information to apply your
18 approach and at what stage of a project would that
19 kind of information be available.

20 DR. RUDD: Well it would have been
21 nice to have the information available like
22 substantially earlier on.

23 There's two components to this,
24 one would be the sensitivity analysis issue and
25 sort of that modelling issue, which I think is --

1 that can be done with many different types of data.
2 There can be large amounts of uncertainty in there
3 which is exactly why we would use a Monte Carlo or
4 Robust decision making situation. For a large
5 project obviously it's a complicated situation.

6 But I was down in Oakland,
7 California awhile ago and there was groups -- there
8 was a commercial consultant down there that was
9 looking at Robust decision making simulations for
10 nuclear storage facilities in the Nevada desert,
11 and they were looking at basically the
12 probabilities of volcanoes rising under the nuclear
13 storage facilities as part of their long-term
14 strategy for capital investment and nuclear stored.

15 So a tremendous amount of
16 information but tremendous risk involved in that
17 situation.

18 So the sensitivity analysis, I
19 mean, that could probably be done with the
20 information that was available right now.

21 On the environmental evaluation
22 side there's two ways of coming at this. One is
23 to, of course, go and do some primary research.
24 When you look at a primary research going from the
25 time that the study's initially funded, you're

1 probably looking six to eight months to get a study
2 done and then probably another year and a half to
3 actually get it out and through peer review and
4 publish it.

5 For a consulting study I've been
6 involved with several consulting studies on
7 evaluation projects where it's, you know, eight
8 months or so to get your initial results through.

9 The other approach on evaluation
10 is what's called benefits transfer, and in that
11 case the strategy is to go out and do a very
12 thorough search of what has been done on -- what
13 research has been done on ecosystem service values
14 for large river systems, and then to -- with some
15 caveats and with some formulas to engage in using
16 numbers that have been derived in other sites and
17 been brought into the Lower Churchill site.

18 That's usually faster to do but
19 the air rates on that are -- if you have sites that
20 are quite similar you can be looking maybe a plus
21 or minus 40 percent on your value estimates, and if
22 you're looking at sites that are quite dissimilar,
23 if you were using Chinese values and trying to
24 adjust them over, you're probably looking at plus
25 or minus 100 percent on your values.

1 So they aren't great but they're
2 still better than no number.

3 And in the worse case, as in what
4 we have a lot of times with endangered species,
5 that there are certain times when there are no
6 numbers and it's just not feasible to get a
7 quantitative number.

8 And then if you looked, again, to
9 federal guidelines from Treasury Board you can use
10 qualitative information to describe what that value
11 would be or that there is an economic value, you
12 recognize that but you can't put a number on it.

13 So there's sort of three stages in
14 there, primary research, benefits transfer and then
15 the qualitative recognition of what the values are.

16 CHAIRPERSON CLARKE: Thank you.

17 CHAIRPERSON GRIFFITHS: Thank you.

18 I will now ask if there are any
19 questions from people here in the hearing room for
20 Dr. Rudd?

21 Yes, I have Mr. Sheldon -- oh, I'm
22 sorry, I ask for people to put their hands up and
23 get names. So the gentleman -- if you could give
24 me your name I will add you to the list.

25 --- QUESTIONS BY THE PUBLIC:

1 MR. MITCHELL: My name is Greg
2 Mitchell.

3 CHAIRPERSON GRIFFITHS: Greg
4 Mitchell, okay.

5 So I will take Mr. Sheldon first.

6 I am going to ask -- and then I
7 will take Mr. Marcocchio. I am going to ask that
8 we really have questions and not extended
9 statements please, a very brief preamble if
10 necessary. That will be helpful. Thank you.

11 Mr. Sheldon?

12 MR. SHELDON: That will be easy
13 because I don't know much about this.

14 In terms of ecosystem service
15 evaluation, I'm just wondering about -- and I have
16 no idea -- what are best practices in terms of
17 cultural evaluation under that umbrella in terms of
18 quantitative, non-quantitative, does it vary by
19 culture?

20 I have no idea so that's just a
21 question.

22 DR. RUDD: That's a really tough
23 one. It does vary by culture. And there has been
24 work that's been done -- the University of Alberta
25 has been a bit active in the area looking at the

1 value of Aboriginal artefacts and cultural sites,
2 say, for non-Aboriginal populations.

3 Where evaluation starts to I
4 wouldn't say fall down -- evaluation is all about
5 making tradeoffs, and what we're trying to do is
6 we're trying to quantify the tradeoff between --
7 basically between financial capital and natural
8 capital, between environment and money, so most
9 people are willing to give up something
10 environmentally for a gain financially.

11 That doesn't always hold though
12 and there are certain times and certain types of
13 preferences and certain types of values where there
14 is no tradeoff that will be made. We can get at
15 that quantitatively but what happens is that you
16 come out -- a number is just not a valid tradeoff.
17 You recognize that there's values there but they
18 just aren't tradeoffs.

19 So to go out and do an evaluation
20 study, say, within an Aboriginal community is
21 something that is very difficult to do because it
22 takes the time to go out and do in person and your
23 sample sizes are typically fairly small.

24 And so what we would normally see
25 in evaluation studies and cost-benefit analysis is

1 that there would -- this is one of the categories
2 where there would be a qualitative recognition that
3 there is some sort of value potentially there, but
4 that it is a non-quantifiable value.

5 That's a bit of a cop-out, but I
6 hope that helps clarify the data.

7 CHAIRPERSON GRIFFITHS: Thank you
8 much, Dr. Rudd.

9 I now have a question from Mr.
10 Greg Mitchell

11 MR. MITCHELL: Dr. Rudd, I'm
12 primarily a biologist, so I don't understand much
13 of the economic jargon and I'd just like to get
14 something clarified.

15 This project has been given by
16 some parties as being a green project. Just to
17 sort of -- if I can understand this -- the exchange
18 of carbon credits, for example, we have an
19 environmental impact, very obvious environmental
20 impacts in terms of the damming for the flooding,
21 the downstream effects and so on.

22 Are you suggesting that there is
23 -- I'm trying to bring this down to my level of
24 understanding of this -- that there is a valuation
25 for people who eat methylmercury contaminated fish,

1 that cost to the health system, ecosystem costs
2 downstream.

3 Are you suggesting that there can
4 be an economic -- it's a two-part question -- that
5 there can be an economic value put on those things,
6 first of all and, secondly, have those -- and I'm
7 unfamiliar with this project, I must add -- have
8 those valuations been involved -- or addressed in
9 the environmental assessment?

10 DR. RUDD: The answer is that,
11 yes, the values can be calculated and can be
12 quantified subject to some caveats like I was just
13 talking about. There's certain situations when we
14 deal with very small samples, for instance.

15 There is -- when one does cost-
16 benefit analysis, there's a whole variety or a
17 whole category of what's known as the "total
18 economic value framework"; a whole series of
19 potential costs and benefits that should be
20 considered.

21 So there are direct costs that may
22 be, for instance, like the timber that's flooded
23 you can't harvest. That should be included
24 obviously in a cost-benefit analysis.

25 A cost-benefit analysis, if

1 there's methylmercury poisoning, that has direct
2 economic cost to the health system, yes, that
3 should be quantified; of course, a harder thing to
4 do.

5 There also should be, economically
6 -- from a theoretical economic perspective, there
7 would also be a value in avoiding an economic
8 benefit that can basically be -- come from people's
9 knowledge that something is safe to eat.

10 And I think looking to Japan right
11 now, all the fears of irradiation. That gives a
12 really good example of that as having really -- it
13 can have real market impacts, it can do some real
14 -- there can be real contamination, but there can
15 also be a lot of anxiety that will tempt, that
16 people will be willing to pay to avoid anxiety over
17 certain types of pollutants for contaminates.

18 So all of those factors can be
19 valued, it's just a -- it's a matter of how
20 complex, and you have to do a cause-benefit on the
21 cost benefit. If it's a very small value in the
22 overall picture, it may not be worthwhile to go and
23 spend a lot of effort to go in -- to get those very
24 small incremental changes.

25 MR. MITCHELL: Thank you.

1 And my second question?

2 DR. RUDD: Sorry, that was -- the
3 second question again there?

4 MR. MITCHELL: My second question
5 was, in your opinion, has that been addressed in
6 this environmental impact statement?

7 DR. RUDD: Not at all.

8 MR. MITCHELL: Thank you.

9 CHAIRPERSON GRIFFITHS: Thank you
10 very much, Mr. Mitchell.

11 I have basically two more
12 questions. One is from Mr. Marcocchio and one from
13 Dr. Doelle on the panel, and then I am going to cut
14 it off and move it on to our next presenter who I
15 know cannot be here this afternoon.

16 So, Mr. Marcocchio, if you have a
17 quick question, please?

18 MR. MARCOCCHIO: Thank you, Dr.
19 Rudd.

20 One point that has come up -- I've
21 got two questions. The first one is the cost of
22 the dam and the decommissioning has not been
23 included in the costs of developing this proposal.

24 The Proponent steadfastly claims
25 that they will not and that it's inappropriate to

1 include those dam decommissioning costs.

2 So is that a creditable economic
3 analysis of the viability of this project given
4 even the narrow economic definitions that the
5 Proponent is using?

6 DR. RUDD: No, I mean, the dam
7 decommissioning costs should be included in a cost-
8 benefit analysis.

9 If it -- they may be thinking that
10 it would be functionally a zero cost because if
11 it's far enough off in the future and it's
12 discounted. That could bring the value down very
13 low, but it should be explicit.

14 I just add that it's very
15 interesting to see that much of the U.S. valuation
16 work right now is about dam decommissioning.
17 Decommissioning is a big thing down there and it's
18 actually costing a lot of money to decommission.

19 MR. MARCOCCHIO: Yes. The
20 Proponent has indicated that the dam will live on
21 in perpetuity and I think the evidence that you
22 pointed to about the costs and the process of
23 decommissioning dams, some of which are only 30 or
24 40 years old, needs to be taken very seriously.

25 My second question is that the

1 Proponent has outlined its various corporate
2 initiatives at the start of these hearings and they
3 have attributed no value to the river system beyond
4 an equivalent value of a pool of oil that they're
5 extracting under the ocean. I personally find this
6 offensive.

7 And you've already touched on it a
8 bit, but can you expand on the intrinsic value
9 tabulation of the Grand River system beyond its
10 value as a source of hydro power?

11 DR. RUDD: Well ---

12 MR. MARCOCCHIO: It'd be negative
13 values, for instance, for the degradation of the
14 ecosystem by methylmercury or the loss of a
15 transportation corridor, et cetera.

16 DR. RUDD: The way that
17 environmental economists account for environmental
18 damage to a system or to the ecosystem services
19 that that system provides is to tally up the costs
20 and benefits for all those who are affected by the
21 changes in the environment.

22 And the big question that -- the
23 real challenge in environmental economics is
24 usually to look at what's the geographic scope of
25 the beneficiaries? Who are the people that either

1 benefit or do not benefit from a development?

2 So when we're looking at something
3 like a dam project, it's not just the people in the
4 local area that are impacted, that are economically
5 impacted by changes in the ecosystem services.
6 What it will typically be is that there will be
7 some sort of a range.

8 There may be some distance decay
9 function happening or in place, so the farther you
10 go away from the project the less people really
11 care about it, but there are also other cases where
12 benefits can carry on nationally, as we saw in my
13 study of endangered species in Atlantic Canada. We
14 saw positive values right out to British Columbia
15 for Atlantic species.

16 So the value, the extent of the
17 value and what components, what ecosystem services
18 from the Lower Churchill that people do value, we
19 don't know right now, and it is an empirical
20 matter, ultimately, to go out and do an assessment
21 of that.

22 But there should -- my
23 anticipation as a professional environmental
24 economist, my anticipation would be that there
25 would be certain losses of habitat, of perhaps

1 displaced species, perhaps visual aesthetics,
2 perhaps methylmercury poisoning, that people beyond
3 the immediate scope of the project as it's defined
4 right now would actually be will to pay to help
5 avoid. And if they're willing to pay, that means
6 that there's an economic value there that should be
7 tallied into a cost-benefit analysis.

8 MR. MARCOCCHIO: Thank you very
9 much.

10 CHAIRPERSON GRIFFITHS: Thank you.
11 One last question from Dr. Doelle
12 on the panel.

13 MEMBER DOELLE: So, Dr. Rudd, I'll
14 be quick.

15 Other presenters have raised
16 similar issues to the ones that you've raised
17 today, certainly in the context of ecosystem
18 services.

19 One of the suggestions that has
20 been made to us is to use a genuine progress index
21 type of approach, and I'm just wondering if you
22 could just very briefly comment on that and whether
23 you have any views on whether that might be an
24 effective approach?

25 DR. RUDD: Yeah, there's a whole

1 -- there's a great number of different indicators
2 that could be used.

3 For a dam project, I would
4 probably not use a genuine progress indicator
5 myself. There's been specific -- there's an IDAM
6 tool -- I don't know if you've seen that yet --
7 integrated dam assessment model, and it's been used
8 in Asia for dam assessments and it draws on the
9 similar ideas to the genuine progress indicator but
10 it's more specifically related to hydro projects.

11 If I was going to an indicator
12 type of assessment that's probably the way that I
13 would go and it would incorporate aspects of
14 economic benefits and sustainability and a number
15 of different other components in it.

16 MEMBER DOELLE: Would you be able
17 to provide some information on that?

18 DR. RUDD: I could certainly
19 forward that. I'm just -- I don't have a printout
20 of my copy of the original report. I'm pretty sure
21 that I had -- there was references on that and I
22 could email that along to the panel office,
23 basically in the next couple minutes so you could
24 have it tonight.

25 MEMBER DOELLE: Sure that would be

1 great. We would have to have the document on
2 record to be able to use it.

3 DR. RUDD: Okay, so would that
4 just involve me sending an official email into the
5 panel then?

6 CHAIRPERSON GRIFFITHS: I would
7 suggest, Dr. Rudd, that maybe you would like to
8 fulfill that undertaking through the Grand
9 Riverkeepers would that be the -- yes, Ms. Benefiel
10 is nodding so if that's a reasonable way to do it,
11 if you would -- we'll take that as an official
12 undertaking, and if you can communicate with Grand
13 Riverkeepers and they will make sure it comes into
14 the system.

15 DR. RUDD: Can do. Thank you.

16 CHAIRPERSON GRIFFITHS: Dr. Rudd,
17 thank you very much for joining us on the telephone
18 and we really appreciate your presentation and
19 answering questions for us. And thank you very
20 much.

21 I'm now going to request Ms.
22 Airhart, who's the next presenter, come forward.

23 DR. RUDD: Okay, thank you, I'll
24 sign off. Thanks for accommodating me on the
25 telephone.

1 CHAIRPERSON GRIFFITHS: Thank you
2 very much. Good-bye.

3 I apologize for keeping you
4 waiting but you know how things go.

5 --- PRESENTATION BY MS. JILL AIRHART:

6 MS. AIRHART: So good morning,
7 everyone. I'm very appreciative to be able to
8 speak to you today.

9 I had some questions regarding
10 food security issues but I feel through the process
11 so far that they've been answered.

12 So I have a different hat, I'm
13 going to just be talking about my personal views on
14 this project.

15 There are two main areas of
16 concern that I have. The first is justification
17 for the project and alternatives. The second is
18 concern for the survival of human existence.

19 I know that sounds really dramatic
20 and idealistic but I really feel that that's what
21 is required at this time.

22 When I considered the implications
23 of this very large energy project which seeks to
24 ultimately link with the main distribution trunks
25 of electricity of North America I become alarmed.

1 My head and my heart both tell me that this is a
2 dangerous idea. The reason for this has to do with
3 the principle of diversity.

4 On August 14th, 2003 there was a
5 huge blackout across the American northeast and
6 almost every inch of Ontario. The largest blackout
7 in North American history.

8 Many parts of the essential
9 electrical tree of this frequently overloaded
10 system have become antiquated. The United States
11 and Canadian government deregulation and
12 privatization of electrical power have contributed
13 to these unsafe conditions as private corporations
14 are more concerned about profit than public safety.

15 Our provincial leaders are
16 planning to market to Nova Scotia which also
17 contains a mixed menu of private power holdings,
18 with the intent of marketing to the United States.

19 Coupled with being linked to
20 possible unstable power systems are the number and
21 severity of environmental crisis's which are
22 occurring at an alarming rate.

23 Does it seem like a good idea to
24 you to be tied into a continental energy system or
25 a dissent environmental calamity and/or a

1 widespread hydro interruption could affect us.

2 The ice storm of 1999 had a huge
3 impact on Eastern Ontario and parts of Quebec. I
4 lived in that area at that time and was affected by
5 it. Thousands of people were without hydro and
6 heat for weeks in late December and early January.

7 Important lessons were learned
8 from that devastating Canadian experience. One of
9 the lessons learned was that one electrical
10 compromise triggered by a severe ice storm which
11 are occurring more frequently in this area because
12 of climate change could affect a huge geographical
13 area.

14 Most people that live in southern
15 Ontario, who can afford it, now own a back-up
16 generator.

17 Our scientists are telling us that
18 climate changes is advancing much more quickly than
19 the models have stipulated. So I believe that any
20 kind of energy system that encompasses as much
21 diversity as possible with a small regional scope
22 makes a lot more sense to me than a single resource
23 mega-project that contains huge power trunks that
24 must be maintained.

25 We have had presentations in this

1 hearing process on alternatives to the project but
2 I don't believe they were considered seriously.

3 One of the main reasons for this
4 dismissive attitude is because it involves a shift
5 of consciousness in the way we think about energy,
6 as well as an examination of the issue of justice.

7 What would happen if there was no
8 choice left but to consider alternatives? Many
9 countries in this world are facing that dilemma and
10 they are coming up with innovative alternatives.

11 I was quite intrigued to discover
12 that Nova Scotia's energy plan states it seems
13 likely that the largest portion of renewable energy
14 will come from wind, with the rest coming from
15 biomass and tidal, balanced by either natural gas
16 or clean imports.

17 Our provincial vision of
18 electrical power is very focused on the Lower
19 Churchill development project as our main pathway
20 to the future. Wind generation appears to be the
21 only other provincial consideration.

22 Solar energy is being used
23 successfully in Denmark, in spite of it being as
24 far north as we are. Tidal power is another
25 option.

1 I saw a very successful biomass
2 project demonstrated on a recent David Suzuki
3 television program about alternative energy
4 strategies being using Europe. Perhaps our
5 province could seriously consider other options.

6 I say this next part respectfully;
7 I am certain that Nalcor officials would refute
8 anything I could say about alternatives because
9 they need to believe that this project embodies the
10 truth. When one is called upon to examine and
11 possibly change entrenched beliefs it can be a very
12 threatening process.

13 The underground installation of
14 the Upper Churchill is among the world's largest,
15 you can't get much bigger than the biggest, but the
16 energy demands cannot now apparently be met by the
17 Upper Churchill.

18 So when Muskrat Falls and Gull
19 Island can't meet the demand where do we go next?
20 Do we harness more rivers of Labrador, why not?
21 Apparently there are plans already being considered
22 for other rivers here.

23 We have to meet the consumer
24 demand, that's the thinking but can our environment
25 sustain this unbridled consumer demand and is it

1 just to expect it to do so.

2 I would like to briefly address
3 some of the global learning about the industrial
4 food system which has its basis in the
5 infrastructure of the oil industry and the post-
6 World War II concept of development. The reason I
7 am referring to the Global Food System is because
8 the principles of diversity and justice can also be
9 applied to our energy systems.

10 Never before have there been so
11 many people without food on this planet; over half
12 of the world's population is hungry and people are
13 dying of starvation at frightening rates. And yet
14 prominent scientists tell us that we have the
15 necessary technology to feed everyone. About 20
16 years ago the United Nations began to study food
17 production on a global scale to find out what could
18 be done. The situation is very complex with many
19 facets but, simply put, what has been learned is
20 that small diverse farms are the most efficient
21 form of producing food. So that tells me that the
22 underlying principle here is diversity.

23 Another lesson from examining the
24 Global Industrial Food System is that food
25 production local and keeping the control of food

1 production in the hands of the food producer will
2 help us survive as a human species. Small farms
3 use diverse natural elements of the environment to
4 sustain food production and so if one aspect of the
5 farm production fails another can take over.

6 So you see the natural order of
7 this planet is biodiversity; the scientists all
8 know this. When the industrial food system seeks
9 to create monoculture crops, things don't go well
10 and serious problems arise. I contend that the
11 same thinking can apply to using one central source
12 of electrical power that spans great distances and
13 is centrally linked to other systems, does not
14 address the natural pattern of diversity required
15 for our survival.

16 I think this project ultimately
17 addresses the concept of justice because no longer
18 can we consider a huge environmental impact project
19 like this in isolation.

20 Let us examine the concept of what
21 I mean by development. Born in the wake of World
22 War II, development became, by far, the largest and
23 most ambitious and collective undertaking of the
24 human race so far. It began with humanitarian
25 idealistic motives matched by enormous material and

1 Quinn Tyre (ph), our own
2 Newfoundland and Labrador environmentalist, has
3 told us that in order to stabilize the earth's
4 environment in the future; we will need to give
5 back as much as 40 percent of our lands surface to
6 recreate a bio-diverse balance and allow the land
7 to rest and recover without being stressed by human
8 encroachment.

9 Northern Canada could really
10 contribute to world sustainability by preserving
11 these vast river ecosystems which are our heritage
12 and our responsibility. If we choose to protect
13 these incredible resources, we can help heal our
14 planet by providing a place for humanity to
15 rejuvenate and enjoy beauty. The concept of
16 ecotourism may have important may be an important
17 human need in the future.

18 We must let go of our addiction to
19 oil and all the energy systems that support that
20 infrastructure. We need to start working with the
21 natural environment and comply with its laws,
22 instead of trying to conquer and harness nature.

23 Finally, I would like to talk a
24 little bit about our present situation in human
25 history. In the past century we have relied on

1 small groups of learned individuals to govern the
2 affairs of the world. That paradigm has changed
3 dramatically due to our ability to move about the
4 planet and to communicate rapidly. What I believe
5 is happening is that the masses of humanity are
6 stirring and becoming aware and informed.

7 The people of Labrador have
8 recently been informally surveyed by the office of
9 Todd Russell, our Liberal Member of Parliament.
10 Two separate surveys gave clear evidence, with
11 repeatable results, that the people of Labrador are
12 very concerned about this project going ahead. The
13 general population of Labrador is well informed,
14 should be listened to and respected as holding
15 intrinsically valuable information, and be included
16 in decision making about this important issue.

17 These Lower Churchill hearings are
18 reflecting what happened in Copenhagen and again at
19 the recent G20 Summit hearing in Ontario in that
20 the government officials were in a sheltered area
21 making decisions in isolation while humanity is
22 outside screaming to be listened to and
23 demonstrating for what they know to be true.

24 Environmental mitigation is
25 meaningless; there is no possible recompense for

1 this stupendously beautiful and invaluable
2 watershed resource; it cannot be replicated. The
3 scientific community is just beginning to
4 understand the complex interaction of diverse
5 elements of the environment. Please do not pretend
6 that one can possible even come close to mitigating
7 the intricate biodiversity of this river system.

8 I believe that the time for moral
9 indifference is gone; we need to be concerned about
10 our collective survival as a human species and
11 about our stewardship of this planet.

12 Thank you.

13 CHAIRPERSON GRIFFITHS: Ms.
14 Airhart, thank you very much for your very
15 thoughtful presentation. I would like to see other
16 questions from the panel.

17 --- QUESTIONS BY THE PANEL:

18 MEMBER JONG: Thank you, Ms.
19 Airhart.

20 The comment that you made that I'm
21 interested in following up on is the one about
22 solar power being used in Denmark, which is at a
23 higher latitude, certainly, than we are. And I
24 guess I'm thinking back to I think it was Mr.
25 Gilbert's comment -- and it may have been in Mud

1 Lake but I don't remember exactly -- where I
2 believe he mentioned that's one of the challenges
3 in northern latitudes is because of the angle of
4 the sun it doesn't work that well. So I'm trying
5 to -- and perhaps you can talk more about what's
6 going on in Denmark or Mr. Gilbert could talk but
7 yeah.

8 Perhaps I will start Ms. Airhart,
9 you've looked at this obviously or you ---

10 MS. AIRHART: Yes, I've just done
11 some research on the internet about it, but I've
12 seen viable projects that are working quite well
13 there, so this thing about the cloud cover.

14 I guess, you know, I'm not a
15 scientist myself and I don't pretend to presume
16 that kind of knowledge.

17 I just think that when a great
18 change is required in how people have to start
19 looking at things, it's very scary and we often
20 retreat into denial and find arguments why it
21 couldn't possibly work because it might be a little
22 bit too frightening to look at something in a
23 different way.

24 So I'm sure that anything I could
25 say these scientists could refute what I have to

1 say, but I just found some things on the internet
2 where solar power works. And I know people here
3 that are using solar power, and it's working quite
4 nicely in their homes.

5 And I have also used solar power
6 in a domestic way, and it worked quite nicely for
7 me.

8 So I think what needs to happen in
9 order for these alternative energies to be
10 seriously considered is the scope needs to narrow
11 down, you know, and just address it in a smaller
12 regional, more manageable way.

13 And I think when people have to
14 work directly with their energy sources, they
15 become much more respectful of that energy and
16 start to live a different lifestyle. And that's
17 completely different from what we're looking at
18 here right now.

19 MR. G. BENNETT: I'll try to put
20 some more context around it.

21 This is a really interesting
22 discussion. I just want to preface my remarks with
23 that, that there are some really good points that
24 have been raised by Ms. Airhart.

25 If we look at solar for a second,

1 Germany comes to mind as one jurisdiction that's
2 doing work and has incented solar development. And
3 I also could look to the experience in Ontario as
4 well.

5 And certainly the price that's
6 paid to developers for solar energy in Ontario is -
7 - well, you know, it's 10 times the retail rate
8 here in Happy Valley-Goose Bay so, you know, it's
9 out. There is a technology. It's being looked at,
10 but it is still very expensive.

11 Most of the activity we see with
12 solar is usually in the more, you know, southern
13 locations. California is working there, Arizona,
14 some of the other southwest U.S. states.

15 But it's an interesting question.
16 At what point do new technologies begin to make
17 sense. I guess our challenge is, we're in a
18 regulatory regime. Least cost energy is what we've
19 -- you know, what we're striving to deliver. It's
20 a legal requirement for us.

21 And you know, so we hear two
22 different perspectives. And I think they're very
23 interesting and important, but you know, we do have
24 parts of our population that are constrained with
25 their electricity supply and we're hearing the

1 message firsthand that that has certain
2 implications.

3 I mean, I could -- we talked
4 about, you know, people looking after their own
5 local issues. We just substitute, you know,
6 residents of some of the coastal communities and we
7 see firsthand how that could be a challenge.

8 So you know, we're having
9 difficulty with that issue generally.

10 So the other point that I do need
11 to make, if I look at, you know, our inter-
12 connectedness to the North American grid here,
13 we're connected today, right. Our transmission
14 line goes to Churchill Falls. There are three, you
15 know, 735 kV lines that leave that facility and go
16 to the Hydro Quebec system, so we're part of that
17 grid today.

18 So in terms of operating the grid,
19 managing the grid, doing that reliably, we have
20 international standards that apply to that and that
21 scenario that we're pretty comfortable with as a
22 utility. I think the connectedness that we will
23 get through here to Nova Scotia will actually prove
24 our reliability overall.

25 But there are some good questions

1 for us to think about here.

2 CHAIRPERSON GRIFFITHS: Thank you,
3 Ms. Airhart.

4 Mr. Hendriks, we are really
5 running out of time, as you can imagine. Is this a
6 question for Ms. Airhart? Is this a point -- I
7 think if it's a response to Nalcor, can we not
8 handle it this afternoon? Would that be all right?

9 I promise you I'll make a note.
10 Ms. Airhart sat down and -- okay.

11 I don't like cutting people off,
12 but it is 10 past 12:00 and we really should break
13 for lunch.

14 I'll make a note of the fact that
15 you had something to say, Mr. Hendriks, directed
16 very much to Nalcor. And I want to thank you very
17 much, Ms. Airhart, for your presentation.

18 And we will return at -- I think
19 we better come back at 1:00 because we have a lot
20 to do this afternoon. Thank you.

21 --- Upon recessing at 12:11 p.m.

22 --- Upon resuming at 1:01 p.m.

23 --- HOUSEKEEPING MATTERS:

24 CHAIRPERSON GRIFFITHS: Good
25 afternoon. We will resume the afternoon of this

1 general session.

2 I have -- before I get on to the
3 agenda, which obviously has been -- we have a
4 couple of changes in the agenda, I have one
5 housekeeping item from the panel.

6 The panel has -- on April the 14th
7 and 15th there will be closing remarks. Those will
8 be the two final sessions of the hearings.

9 And to help you, the panel has
10 prepared a short document including -- that covers
11 the proposed procedures around preparing,
12 submitting and delivering closing remarks. So that
13 will be posted to the registry. I don't think it's
14 on there right now, but it will be tomorrow.

15 Tomorrow it will be posted to the
16 registry and then please take a look so that you've
17 got plenty of notice with respect to the submission
18 or closing remarks. And if you have any questions,
19 please go to the secretariat and they'll be able to
20 help you.

21 There's hardly anyone sitting in
22 the room. Sorry, I shouldn't say that. Hardly
23 anyone. Very important people sitting in the room.
24 But in terms of numbers, we do not have large
25 numbers of people sitting in the room, so I may

1 repeat that piece of information.

2 I believe that Nalcor, you have a
3 piece of housekeeping. You have an undertaking to
4 read in to the record, so -- I just discovered that
5 we topped -- we number our undertakings, and today
6 we went over 100, so I don't know.

7 The champagne is coming, I think,
8 a little later, but anyway.

9 Mr. Bennett.

10 MR. G. BENNETT: Thank you.

11 We're going to try to clear up
12 Undertaking 99, and that was in respect of safe
13 levels of the U.S. EPA versus Health Canada values
14 for methylmercury.

15 And so we did go back -- Dr. Loren
16 Knopper went back and reviewed the material on
17 that, and there were two points that he asked me to
18 pass on.

19 First of all, the Sierra Club
20 statement that there's no safe level for
21 methylmercury is incorrect, that the PTDI of .23
22 micrograms per kilo per day is based on a maternal
23 hair level of 14 milligrams per kilo. And that
24 would have been the top line on his chart of Slide
25 12 in his presentation this morning.

1 And the JECFA Committee states:
2 "The steady state intake at this level would be an
3 exposure that would have no appreciable adverse
4 effects on children."

5 And the reference to 5.8 that was
6 discussed this morning appears to be a U.S. EPA
7 reference for blood level, not for hair. And Slide
8 12 in our presentation this morning was all hair
9 data. And the level that we were speaking to was
10 less than 10 to 14 milligrams per kilogram.

11 And the comparable U.S. EPA value
12 for hair is 11 milligrams per kilogram, and that's
13 within that range of 10 to 14.

14 So hopefully that will resolve
15 that issue.

16 CHAIRPERSON GRIFFITHS: Thank you
17 very much, Mr. Bennett.

18 Now, looking at our agenda for
19 this afternoon, we -- the first -- we have a lot to
20 get through. That's my first message. And as you
21 know, we've just gone through two very long days of
22 morning, afternoon and evening sessions for the
23 panel, so I'm eager to hit five o'clock as close as
24 we can make it. So I'm really going to ask for
25 your assistance. We've had this problem before and

1 it's always worked well, so I'm going to ask for
2 people to be nice and crisp about their
3 presentations, and particularly crisp about their
4 questions and answers, please, so that we can get
5 through and get away around five o'clock.

6 We have one presentation that we
7 didn't get to this morning. I thank Keith Jacque
8 of the Labrador Aboriginal Training Partnership for
9 patience and waiting until this afternoon. I'm
10 going to ask for the patience also of everybody
11 else who is presenting this afternoon. Mr. Barkman
12 would have been the first one on, but I'm afraid
13 we're going to have to move everybody up a little
14 bit. I hope that's acceptable to you.

15 And we have another presenter
16 coming in by teleconference, and they're down for
17 2:50. We generally have to hit those. It's better
18 if we hit those times pretty well dead on because
19 otherwise it's difficult to get people.

20 So we'll have to work around that
21 as well.

22 Having said that, I think we can
23 move on and I'd like to invite Keith Jacque of LATP
24 forward to make a presentation.

25 --- PRESENTATION FROM THE LABRADOR ABORIGINAL

1 TRAINING PARTNERSHIP BY MR. KEITH JACQUE:

2 MR. JACQUE: Good day. Thank you
3 very much. Thank you for giving me the opportunity
4 to present here today.

5 As you have mentioned, my name is
6 Keith Jacque. I'm the Executive Director with the
7 Labrador Aboriginal Training Partnership and I have
8 come here today, I guess, just to -- and after
9 listening and reading a couple documents from the
10 panel sessions over the past number of days, I
11 notice that there were a number of discussions or
12 mentions about the L ATP, the Labrador Aboriginal
13 Training Partnership. So I've come forward today
14 just -- I'm representing the organization and I
15 will give you an overview of the organization, just
16 a little bit about who we are, where we come from,
17 how we got where we are and just a little bit about
18 where we're going in the future, just a bit of a
19 summary about the L ATP in general. So I hope you
20 enjoy.

21 The Labrador Aboriginal Training
22 Partnership is a partnership between the three
23 Labrador aboriginal groups; namely, the Innu
24 Nation, the Nunatsiavut government and NunatuKavut,
25 which is formerly the Labrador Métis Nation, along

1 with Nalcor Energy.

2 We do also have other supporting
3 partners on our Board and they include the
4 Newfoundland government, the Department of
5 Education, Labrador Aboriginal Affairs, Human
6 Resources, Labour Employment, Atlantic Canada
7 Opportunities Agency and Indian and Northern
8 Affairs Canada.

9 The LAMP is an organization that
10 is under direction of a Board. The Board consists
11 of a voting member from each of the three
12 aboriginal groups, the Innu Nation, Nunatsiavut and
13 NunatuKavut, and along with Nalcor Energy and we
14 also have an independent chair who oversees the
15 Board discussions and proceedings of the Board.

16 The LAMP will receive \$15 million
17 from the Aboriginal Skills to the Employment
18 Partnership Program of the Human Resource Skills
19 Development Canada which will be matched then by
20 partner-in-kind contributions for a total of \$30
21 million that will be in place until March 31st,
22 2012.

23 In addition to that, the
24 provincial government has also donated some extra
25 funds in the amount of, right now, \$200,000 towards

1 the implementation of special projects, progression
2 of women in trades and technology and translations
3 of the various documents of the website into the
4 Innu-aimun and the Inuktitut languages.

5 Our sole purpose is to improve
6 labour market outcomes for aboriginal people,
7 provide skilled support for a skilled adaptable
8 inclusive aboriginal labour force. I guess the
9 biggest one is to ensure that aboriginal
10 individuals are provided with effective education
11 and skills training to obtain and retain advanced
12 employment opportunities.

13 We are in place to oversee a
14 comprehensive training-to-employment plan, to
15 prepare the three aboriginal groups, the Innu, the
16 Inuit and the NunatuKavut individuals for
17 employment opportunities through resource
18 development in Labrador, all throughout Labrador.

19 Just a little bit of history about
20 us is that the LATP, we were incorporated back in
21 approximately November of 2009. Our official
22 launch was in Happy Valley-Goose Bay on March 8th
23 and our staff, we had a full complement of staff by
24 May 20th, 2010, around that date. And currently
25 right now we employ 17 individuals with our

1 organization.

2 We have a very unique organization
3 and setup in that each aboriginal group, each one
4 has their own training plan and they also have
5 their own training budget.

6 From this, we were able to ensure
7 flexibility for training for each of the groups.
8 We have designated LAMP staff for each of the
9 aboriginal groups, and we also have satellite
10 offices in respective communities. So we do have
11 satellite offices. Our main office is here in
12 Goose Bay, but we also have offices in Sheshatshiu,
13 Charlottetown on the south coast, Natuashish on the
14 north coast and Nain as well on the north coast as
15 well.

16 One of the goals, I guess, of the
17 Labrador Aboriginal Training Partnership is
18 employment in the natural resource sector in
19 Labrador. There is, I guess, a buzz of opportunity
20 throughout Labrador right now and a number of
21 opportunities available through the industrial
22 sector, and we are there to provide employment for
23 aboriginals to gain work.

24 So individuals will receive
25 training and workplace experience to require the

1 secured long-term sustainable jobs in these types
2 of industries.

3 We offer different types of
4 training. We offer education. We offer training.
5 We offer job placement to support aboriginal men,
6 women and youth.

7 Our main focus will be on
8 apprenticeship-type positions and occupations --
9 and I will list them out now briefly -- that are
10 also applicable to the construction trades.

11 But we do also contribute to
12 training and workplace experience for skilled
13 positions in operations management, emergency
14 response and all those which are in demand by
15 aboriginal private and public sectors and other
16 employers in the region.

17 As mentioned, we do offer training
18 opportunities in the construction trades
19 occupations like carpenters, electricians,
20 plumbers, for emergency response, for firefighting,
21 security, paramedics, technology occupations,
22 engineering or artefacts or information technology,
23 any camp operations for any industrial sector which
24 would involve management, cooks, support workers.
25 And we do also other support like for heavy

1 equipment operators, concrete workers, truck
2 drivers or anything affiliated with the industrial
3 sector as a whole.

4 Through the LATP we do offer two
5 types of training options. We offer a community-
6 based training option, which is basically where we
7 ask or put out a request for proposal for an
8 educational institution to offer training in
9 certain communities and that will certainly assist
10 with many aboriginal people, especially with the
11 Innu.

12 Where we had the training based in
13 the community, the residents can stay in the
14 community. They can stay at home with their family
15 and friends in their cultural traditions. They are
16 close to their family and other issues that are
17 related, and it really works out well, and I'll
18 show you some successes in that now briefly.

19 And we also offer individuals a
20 chance to attend school outside of their community,
21 and we will provide all the assistance required to
22 get them into that training.

23 As mentioned before, our overall
24 goal of an LATP apprenticeship, because we do offer
25 apprenticeship type and job training and employment

1 programs, so we do provide funding to enable
2 Labrador aboriginal people to gain hours in the
3 apprenticeship programs towards a journeyperson
4 certification.

5 There is a difficulty, I guess,
6 within -- and it's not only applicable to
7 Newfoundland but right across Canada -- for
8 apprentices coming out of their first-year training
9 and then try to access hours to gain towards the
10 journeyperson. So we also assist for job placement
11 to get them over that hump to get them on the way
12 into their next block of training.

13 We do provide on-the-job training
14 apprentices and they do -- they are available for
15 both private and public sector enterprises, and
16 also, trainees will be bridged into on-the-job
17 training, apprentices, work terms, job shadowing
18 and general on-site training with various employers
19 throughout the province.

20 Currently right now, our
21 apprenticeship and job training employment, we have
22 apprentices or on-the-job training offers in mill
23 rights, welders, electrical, cooks, drillers, heavy
24 equipment operators, heavy equipment management,
25 plumbing, small equipment and power light

1 technicians, just to name a few right now.

2 Just to give you a little bit of
3 an update about the Labrador Aboriginal Training
4 Partnership shifts; we come into place and the
5 staff come into place back in May. We have
6 currently funded or been funded through 135
7 individuals who got some type of funding. We had
8 91 who are currently enrolled in a training-to-
9 employment apprenticeship programs, whether it be
10 through here in Goose Bay or in various colleges
11 and universities throughout Newfoundland. We are
12 scattered around. We have 55 who are currently
13 registered with our apprenticeship program. We
14 have 30 right now that are working in apprentice
15 with the LATP on-the-job training program and are
16 either gaining hours toward their journeyperson
17 certification and since we have come to place in
18 May of 2010, we have 125 Aboriginals who have
19 attained employment from getting some type of
20 assistance through the Labrador Aboriginal Training
21 Partnership.

22 Of those individuals, there were
23 approximately, I guess -- a couple days ago there
24 was 588 I think it was at that time who we had --
25 clients assessed, that went through our office and

1 since that time the numbers have been going up.
2 We're well over 600 mark right now and
3 approximately 40 percent of those are women and 60
4 percent are men. So we're almost on the halfway
5 mark between both male and female at that time.

6 As I mentioned earlier, we do have
7 some successes and we mentioned about community
8 based training projects where the specific training
9 institution will come to the community.

10 We had two on the go in the
11 community of Sheshatshiu through the Fisheries and
12 Marine Institute.

13 We had a firefighting program
14 where 13 community members were graduated from the
15 firefighting program and are well equipped and on
16 the way for fire fighting.

17 A number of those individuals are
18 in the -- either in the on-the-job training program
19 right now through the Circle on the base here right
20 now in Happy Valley-Goose Bay providing training,
21 and more individuals will gain employment through
22 Circle or on-the-job training through Circle to
23 help them provide training that will hopefully
24 enable them to establish their own fire brigade
25 within their community.

1 In addition, in Sheshatshiu we
2 have 17 individuals complete a carpentry program
3 right now, and out of them approximately 10 will be
4 on-the-job training program with -- have started
5 now or will be within the next couple of days and
6 will be achieving hours in their journey person
7 certification.

8 In addition to that, in the
9 community of Natuashish we have a carpentry program
10 offered there as well, and 11 right now are due to
11 complete their training by July 2011 with some
12 prospects for a job then this summer through the
13 bank -- Natuashish.

14 And along with that in Natuashish
15 we also have a heavy equipment operator program
16 where 13 are due to complete, either sometime in
17 April or May depending on weather conditions, but
18 will be approximately 13 individuals will complete
19 the heavy equipment operator program in Natuashish.

20 Some of our other successes, as I
21 mentioned, we do have community based training but
22 we also have individualized training programs.

23 Currently right now we have 37
24 Nunatsiavut members, 80 Nuntukavut members, and 67
25 Innu members who have opted for individualized

1 training programs through various education
2 institutions throughout Newfoundland and Labrador
3 and also beyond as well.

4 We do provide support, as I
5 mentioned earlier, for these individuals to attend
6 to these institutions and we do cover things like
7 tuition. We do provide rent, travel, books,
8 equipment or clothing, whatever is required for
9 these apprenticeship-type positions, or tools or
10 whatever is needed.

11 We do offer tutoring assistance.
12 We do offer living allowance and we also do offer
13 childcare as well for any individuals who so desire
14 or so need that.

15 The LAMP was established initially
16 to -- as a unique organization to look at the
17 individual as a whole. Each individual may require
18 different needs or different requirements to attend
19 school and through our counselling service through
20 our Labrador Aboriginal Training Partnership we are
21 able to provide other services to individuals as
22 needed.

23 A couple of unique programs that
24 we did have on the go is that we did provide some
25 training for some women to go into non-traditional

1 trades and we do have some successes for the
2 orientation to trades and technology for women
3 that's offered through the College of the North
4 Atlantic this past semester, and also currently
5 right now we have an electrical trades orientation
6 program offered through the Electricity Executive
7 Council of Canada.

8 We're offering a training program
9 where individuals will come in and will, over a 14-
10 week period, get access or information regarding
11 the electrical trades orientation. They will get
12 two weeks in each of those fields and then they
13 will offer a job placement at the end.

14 They kind of give the feel for
15 which area or for which -- you know, idea or which
16 area they would like to go into once they completed
17 a program.

18 For our future direction, as I
19 mentioned earlier, we do have a number of partners
20 at our table. Our existing program and our
21 existing agreement expires on March 31st, 2012,
22 that's when the ASEP agreement is complete with the
23 federal government.

24 However, the board right now are
25 getting together to determine ways to secure

1 funding through other federal funding programs or
2 other private sector partnerships, you know, or
3 other individuals throughout the companies.

4 Right now, Labrador, as mentioned
5 earlier, is I guess a hustling community or
6 bustling community where there are many
7 developments throughout Labrador, so we are open to
8 secure other types of funding opportunities so
9 individuals can continue on their training.

10 A lot of the training was done for
11 nine months training but we do offer training that
12 would go beyond March 2012, so we're now in the
13 process to try to secure funds that will bring us
14 beyond March 31st, 2012, through either federal
15 government or other private sector partnerships or
16 other industrial sector organizations; whoever
17 might be interested in coming onboard with us.

18 So in essence that's what we're
19 about. We are the Labrador Aboriginal Training
20 Partnership. We have come a long way since the
21 short period of time to coming in April, when I
22 first started, to an empty office and then getting
23 established, getting a crew on, getting out and
24 doing community information sessions.

25 And I do have to -- we do have a

1 dynamic working relationship with a number of
2 staff, you know, all throughout the coast, south
3 coast and north coast as well. We really work
4 together, we have good staff beyond me that are
5 really helping us and brought us to where we are
6 today. So it has been a real success, if I don't
7 say so myself.

8 Thank you. Are there any
9 questions?

10 CHAIRPERSON GRIFFITHS: I imagine
11 there will be.

12 Thank you very much, Mr. Jacque,
13 for your presentation.

14 I'm going to ask for questions
15 from the panel but I'm going to just ask one of my
16 own first of all.

17 --- QUESTIONS FROM THE PANEL:

18 CHAIRPERSON GRIFFITHS: Can you
19 talk a little bit about the kinds of qualifications
20 that you need for people to enter training and I'm
21 sure that will vary with the type of training?

22 Is that in some cases a problem in
23 terms of people having the prerequisites to enter
24 the training, and is there something that's
25 happening before the training that's helping to

1 address that issue?

2 MR. JACQUE: As I mentioned, we
3 are an organization that are set up to look at the
4 individual as whole, to bring them where they are,
5 to bring them where they need to be, whether that
6 be involved in previous education, whether it be
7 involved in adult basic education or other type of
8 training, to bring them where they need to be to
9 get into trades, so we do offer that.

10 There are a number of, I guess,
11 regulations when you go to an education institution
12 before they get into a program. There are certain
13 things that they do need and in particular with the
14 Innu we do provide that assistance, we do provide
15 through the educational assistance, whether it need
16 to be translation or other types of supports.

17 But we will bring them where they
18 need to be, to where they need to go, whether it be
19 other education or tutoring or some other type of
20 assistance but we will bring them there, yes.

21 CHAIRPERSON GRIFFITHS: So
22 somebody could come, maybe they only have grade six
23 or seven or something like that and you will start
24 working with them at that point and figure out a
25 way to get them whatever educational attainment

1 they might need to take the next step in training.
2 Is that what you're saying?

3 MR. JACQUE: Yes, we will. I
4 guess the only barrier that we're facing right now
5 is that our agreement's only in place 'til March
6 2012, so it do cause us some barriers to try to
7 bring them where they need to be.

8 If they are in a grade six
9 education, say, and then they would need to get to
10 a grade 12 and then kind of get into a training
11 after that, so it did cause us some barriers first
12 but we are looking for other avenues beyond March
13 31st that we can take that individual to where they
14 need to be.

15 And the way it's been set up,
16 whichever group has their own training plan and has
17 their own training budget, so it's different for
18 each Aboriginal group that we have onboard with us.
19 So it would depend on the individual that will come
20 forward. It would depend on the Aboriginal group
21 and then where they need to be and where -- but we
22 will find that assistance for them, yes.

23 CHAIRPERSON GRIFFITHS: And my
24 second-last and last question is, in terms of
25 partners, only Nalcor -- well, I guess Nalcor isn't

1 a private Crown corporation but anyway, you have no
2 other private partners at the moment, no other
3 resource companies that have -- natural resource
4 companies that have come onboard

5 Are you pursuing them or?

6 MR. JACQUE: Yeah, there's no
7 other private companies at the time but we are
8 pursuing them, where we just come in place a little
9 over a year ago. Their agreement was done
10 initially with the three Aboriginal groups, the
11 Innu, the Inuit and Nunatsiavut along with Nalcor
12 Energy, but at the board level we are starting to
13 venture out into other private sector partners to
14 come onboard that will bring us beyond.

15 This particular money that was
16 brought forward at this time, it was tied with
17 Nalcor, with the Lower Churchill project, but
18 beyond that, then we are open then to go with other
19 partners and we are investigating that at this
20 time, yes.

21 CHAIRPERSON GRIFFITHS: I didn't
22 tell the truth, I thought of another question but
23 it relates to that.

24 In your objectives you're talking
25 about training for employment and long-term

1 sustainable and so on, given that the -- so Nalcor
2 is -- the proposed project were to go ahead it
3 certainly would provide a number of years of
4 employment but not sustainable in -- it's
5 construction employment. After the construction
6 period is over that's it.

7 I take it that the program is not
8 built around the Lower Churchill project, it's
9 Nalcor's come on board because they have a project
10 that will require trained workers, but that's not
11 the thrust?

12 MR. JACQUE: No, that's not the
13 thrust, but in order to access to the federal
14 government it had to be tied to a major development
15 project. But, you know, that's why we are looking
16 to other industrial sector developments on a whole
17 afterwards.

18 Because there are other industrial
19 developments throughout Labrador right now is to
20 provide employment opportunities for these
21 Aborigines to come forward, whether it be Lower
22 Churchill or whether it be some other type of
23 industrial sector development.

24 The Aborigines are not tied
25 directly to the Lower Churchill project. It's not

1 contingent that they have to go to work for it.
2 They could go back to their home community and work
3 within the community, establish their own business
4 or go out and venture on their own.

5 So just at this time it was tied
6 to that project, yes.

7 CHAIRPERSON GRIFFITHS: Okay.
8 Thank you.

9 Other questions?

10 CHAIRPERSON CLARKE: Thank you,
11 Mr. Jacque.

12 I was quite impressed, as you
13 obviously are, and should be with the success and
14 the fact that you've provided some sort of
15 assistance to some 335 people just in like one year
16 of being in operation.

17 MR. JACQUE: Yes.

18 CHAIRPERSON CLARKE: And I
19 appreciate the fact that you're trying to find
20 other means of funding, especially for the people
21 who are in the midst of their training program.

22 MR. JACQUE: Yes.

23 CHAIRPERSON CLARKE: But I also
24 think -- or my question is related to the fact that
25 if you have more funding presumably there will be

1 -- you will be getting new students involved in the
2 program, and that's the area of my question.

3 I'm just wondering, from a demand
4 point of view in the three Aboriginal groups that
5 you're dealing with, do you have a feel for what is
6 the yearly -- the demand that's still latent there?

7 Like is it a similar number, 335,
8 is it more than that, that if you had the funds
9 you'd be able to help?

10 That's the kind of question I
11 have.

12 MR. JACQUE: There was 335 that we
13 did employ, however, in terms of applications we
14 probably had 700-plus applications from various
15 individuals that come into us.

16 And we are constantly receiving on
17 a daily basis -- you know, in quarries,
18 applications come in, coming forward to further
19 training, you know, whether it be the construction
20 trades or other types of opportunities as well,
21 from all of the Aboriginal groups, not just one.

22 So in the beginning I think when
23 we started in September -- we started funding
24 students to go through in September, we started
25 doing our community information sessions about two

1 months, after we got it established a bit, and then
2 within a matter of a month I think we had over 500
3 applications at that time.

4 So there is definitely a big
5 interest out there, yes, and continue to do so.

6 CHAIRPERSON CLARKE: Thank you.

7 MEMBER JONG: Could I just follow-
8 up on Mr. Clarke's comment I guess around the
9 demand and the 700-odd people that you've had
10 apply, and Ms. Griffiths' questions about the
11 previous education that people are coming in with.

12 Is that a criterion for getting
13 into the program in terms of -- like, how do you
14 determine among the 700 that apply? Do you set a
15 minimum level?

16 Because given the timeframe you've
17 got to work with and if people are coming in with a
18 grade 3 or a grade 6 you may not be able -- like
19 there's a limit to how much can be accomplished.

20 MR. JACQUE: Yes, there is a
21 limit, and the way it works, I guess, is where we
22 have the three Aboriginal groups each group has
23 their own training plan.

24 So if an individual comes forward
25 and applies for a certain type of job it has to be

1 in the training plan that's applicable to that
2 Aboriginal group.

3 So if some individual comes
4 forward and applies for helicopter pilot training,
5 for instance, you know, that may not be part of the
6 training plan for that particular Aboriginal group
7 so then obviously then we wouldn't be able to
8 accept that person at that time.

9 As for a grade level there's no
10 really set level that we look at for a grade level.
11 It's mostly that we look at is where they want to
12 be and how long it will take them to get there. I
13 mean, obviously if someone comes forward and wanted
14 training for us to provide for five years obviously
15 because we're not in place after March or
16 presumably not in place after March 31st we won't be
17 able to accept them for the full term.

18 With regards to the individual
19 that might come forward that might need two or
20 three months refresher type training for an
21 individual, say, who had a heavy equipment operator
22 program course for a number of years, never pursued
23 it, never got involved, however, in need of a
24 refresher course, that there is a good possibility
25 for him or her to receive a job afterwards, might

1 need a refresher course, then we will certainly
2 look at that individual more favourably because we
3 would know then we would get him into the training,
4 get him out and get him done and then have them
5 into a job within a short period of time.

6 MEMBER JONG: I had a quick
7 question around students that are coming into town
8 to do training, has housing been an issue for them?
9 Is that a limiting factor?

10 MR. JACQUE: Well, I guess, as
11 mentioned a number of times, you may have heard
12 that, housing is a concern here in the Goose Bay
13 area and it has been a problem.

14 We have tried to, I guess, pursue
15 other avenues but we weren't successful at the time
16 to provide some assistance for the housing, but it
17 has been an issue.

18 I don't know of any specific issue
19 where it prevented someone coming to the Goose Bay
20 area, because they found other means or moved in
21 with someone or whatnot, but it definitely is a
22 concern, yes.

23 CHAIRPERSON GRIFFITHS: Thank you.
24 That's questions from the panel.

25 So I will now turn to the

1 Proponent. Do you have questions for Mr. Jacque?

2 MR. G. BENNETT: I think we're
3 good, thanks.

4 CHAIRPERSON GRIFFITHS: Are there
5 questions from the floor?

6 Mr. Hendriks and Mr. Learning?

7 Mr. Hendriks -- and I haven't
8 forgotten your other request. Eventually we'll get
9 to it.

10 --- QUESTIONS BY THE PUBLIC:

11 MR. HENDRIKS: I have two
12 questions for Mr. -- I want to make sure I
13 pronounce your name correctly. Is it Jacque?

14 MR. JACQUE: That's correct,
15 Jacque, yes.

16 MR. HENDRIKS: Thank you.

17 Mr. Jacque, thank you for your
18 informative presentation.

19 Two questions for you; I notice
20 that the numbers -- I noticed the substantial
21 numbers of people who've gone through the training,
22 which is very good news. Can you please provide
23 the panel with some details of your reporting?

24 So you're reporting all these
25 numbers and other things that you might report on,

1 and when you provide those reports like do you
2 provide them once a quarter, like four times a
3 year, or is it yearly reports, and what sort of
4 information you sort of keep track of and report
5 on?

6 MR. JACQUE: Because we are part
7 of the federal government's ASEP program we do have
8 to provide quarterly reports to the federal
9 government.

10 So on the quarterly reports we do
11 report on all our funding, all our finances, all
12 our applications of individuals that come forward
13 from each of the three Aboriginal groups. We break
14 it down then to the age group.

15 We do operate on what's called the
16 ARM system that will then upload to the federal
17 government. So that provides all the information
18 about the individuals, their age, their Aboriginal
19 -- you know, their status and whatnot, their
20 gender; all that is provided on a quarterly basis.

21 And along with that we do meet as
22 a board on a quarterly basis where I provide
23 reports to the board about all our successes, all
24 our intakes, all our people in training or on-the-
25 job training and whatnot.

1 So we do provide that on a
2 quarterly basis along with the federal government.

3 We are also audited as well for
4 our financial audit and financials so that they do
5 that twice a year. They did that in past July,
6 just after we come along, and also this past
7 January.

8 And as for reporting we don't get
9 out of it. I think I come on the job on April 12th
10 and within two weeks I had to have a quarterly
11 report done. So it's very new to me but it's very
12 strict and it's very stringent, but we do provide
13 quite a bit of reporting, yes.

14 MR. HENDRIKS: And those reports
15 are available to the general public as well?

16 MR. JACQUE: Yes, as far as I know
17 through the federal government, yes, they are.

18 MR. HENDRIKS: Okay, very good.
19 That's very helpful. Thank you.

20 My second is sort of a
21 question/comment. I notice that you are running
22 community based training programs, and from working
23 with the Innu I know that that was requested by the
24 Aboriginal groups, and also training programs in
25 Goose Bay. And my understanding is the assumption

1 is that community based programs will lead to
2 greater participation in training, which makes
3 sense. People don't have to travel.

4 But I'm a bit concerned, based on
5 my experience with other Aboriginal communities
6 that it might result in lower participation in
7 employment on the project.

8 And the reason I say that is that
9 one of the important aspects of training outside of
10 the communities is that young people also learn to
11 live and cope on their own.

12 And in the event that the project
13 proceeds I'm wondering if the LATP can -- can you
14 specifically monitor whether in community training
15 or out of community training led to more people
16 getting employment in general and whether one or
17 the other led to more people getting employment on
18 the project?

19 This would be very useful for us
20 to know in the future, because we're working under
21 the assumption that community based training is the
22 way to go but the proof, I guess, is in what
23 happens down the road.

24 MR. JACQUE: Yes, I guess I can
25 speak a little bit to that.

1 The community based training is
2 not for every individual. It was specific for the
3 two Inuit communities of Sheshatshiu and that was
4 just due to a number of factors, cultural
5 traditions, language, you know, barriers and
6 whatnot.

7 However, having said that, with
8 the agreement the individuals do not necessarily
9 have to go to work in the Lower Churchill if they
10 choose not to do so. It's not a time factor.

11 However, having said that, I guess
12 with any individual or any Aboriginal, it would be
13 up to the individual whether or not they would like
14 to leave the community or would go elsewhere.

15 However, we are developing a
16 database right now separate from the one that
17 you're going to report to the federal government
18 that hopefully then would track that and would
19 monitor that and check to see then if these
20 community-based training programs for these
21 individuals would entice them to go out.

22 In particular with the Innu, they
23 would rather work in their own communities. They
24 are ready now to establish their own infrastructure
25 and other various jobs and placements within their

1 own communities, so -- and that's what they decided
2 to do at this time.

3 MR. HENDRIKS: Yeah, that was my
4 understanding as well. But I'd appreciate if you
5 could try to keep track of that in terms of people
6 going to work on the project, whether in-community
7 training is working better in the long run.

8 I mean, I realize it's hard to do,
9 but it would be valuable in the long term.

10 MR. JACQUE: Yes. And hopefully -
11 - if we're in place, hopefully then we'll be able
12 to track it even more.

13 CHAIRPERSON GRIFFITHS: Just very
14 short, please, Mr. Hendriks.

15 MR. HENDRIKS: A quick one because
16 I'm not clear on this.

17 You mentioned in your presentation
18 that Nalcor is an in-kind contributor, so I just
19 wanted to be clear on that.

20 Nalcor -- there's no cash
21 contribution from Nalcor? Only cash here is from
22 the AESEP program?

23 MR. JACQUE: From the AESEP
24 program from the provincial government.

25 There was a commitment from Nalcor

1 to provide some cash as well to the project right
2 now.

3 MR. HENDRIK: A future commitment.

4 MR. JACQUE: Yes. Our agreement
5 is in place until March 31st, but there is a
6 commitment, financial commitment before that date
7 from Nalcor as well along with the provincial
8 government.

9 MR. HENDRIK: Thank you.

10 CHAIRPERSON GRIFFITHS: Okay,
11 thank you very much. Mr. Learning.

12 MR. LEARNING: Richard Learning.

13 If a member from the Federation of
14 Newfoundland Indians or the Conn River Indians
15 lived in Labrador, would they be able to work on
16 this program, too?

17 MR. JACQUE: Under this current
18 agreement, we're right now just specifically tied
19 to the Innu and Nunatsiavut and NunatuKavut
20 beneficiaries right now through this agreement.

21 MR. LEARNING: So they're left out
22 altogether, yet they're aboriginal people. And
23 they're from this province.

24 MR. JACQUE: At this time when the
25 proposal was put forward, at this time it was

1 specifically related to these three individual --
2 these three groups at this time, yes.

3 MR. LEARNING: Okay. I have a
4 question for Nalcor.

5 When these people actually finish
6 with LATP, the heavy equipment operators, are you
7 going to be hiring those people?

8 MR. G. BENNETT: The terms of the
9 benefit strategy, the hiring priority all apply.
10 If they're qualified for a position, they're
11 residents of Labrador, the beneficiaries in IBA
12 priority fits, then they're here. Absolutely.

13 MR. LEARNING: Oh, good, because
14 I'd rather have one of them run me over than some
15 stranger when I'm out there protesting.

16 CHAIRPERSON GRIFFITHS: Thank you,
17 Mr. Learning.

18 That concludes the questioning.
19 I'd like to thank Mr. Jacque -- I don't know. I'll
20 have to work on that pronunciation. I'm getting
21 there.

22 Anyway, thank you so much for your
23 presentation. Very helpful, and thank you for
24 waiting.

25 MR. JACQUE: All right. Thank

1 you. Have a good day.

2 CHAIRPERSON GRIFFITHS: Our next
3 presenter is Mr. Lowell Barkman, the Deputy Mayor
4 of the Town of North West River. And we know we
5 saw you briefly at our hearing in North West River,
6 and you promised you would return, so welcome back.

7 --- PRESENTATION FROM TOWN OF NORTH WEST RIVER BY
8 MR. LOWELL BARKMAN:

9 MR. BARKMAN: Thank you. Yes, you
10 won't get off as easily today. You'll actually
11 have to listen this time and can't say, "Sorry,
12 it's too late; you get to go home".

13 The Town of North West River has
14 been listening to our residents through all of this
15 and we've heard them at some of these hearings as
16 well as on the street. And so we have concerns,
17 and we need to bring those to your attention.

18 You all have a copy of the
19 presentation anyways, but I'm going to go through
20 this with you.

21 People in our town in general feel
22 that the Lower Churchill is a done deal, despite
23 the hearings, and they are scared they're going to
24 be victims if the Lower Churchill goes ahead.

25 It's our hope that you, as a

1 panel, will see that that doesn't happen.

2 The urgency of this development is
3 maybe misrepresented. There are thoughts that a
4 slower development may be the answer, being able to
5 take into consideration things like further
6 scientific studies on -- we'll get into this a
7 little later -- on the salinity in Grand Lake and a
8 few of these things. So we're concerned about the
9 urgency.

10 Many ordinary residents feel that
11 the process of this panel is too onerous and too
12 highly technical to have their own say. Many
13 organizations do not have the time or resources to
14 effectively mount a representation of their
15 concerns or, indeed, to even analyze the mountains
16 of information and scientific and technical data
17 presented to the panel.

18 Our people are either not -- they
19 feel they're either not represented or they aren't
20 being represented as well as they think is
21 necessary to Nunatsiavut or the NunatuKavut.

22 I should point out at this point
23 that our town consists of about 90 percent
24 aboriginal people and is a very valid concern in
25 North West River that they feel they're being

1 under-represented.

2 Another feeling is that the Innu
3 Nation carries a disproportionate amount of weight
4 compared to the rest of the citizenry, whether that
5 be Inuit, NunatuKavut or, indeed, the general white
6 population.

7 The Town of North West River must
8 obtain direct benefits from the development if this
9 deal proceeds, which leads us to point number two.

10 North West River is a community
11 that lives on the water. At least 90 percent of
12 our residents are constantly on the water or on the
13 land. They're very big on hunting, trapping,
14 fishing. All of these things play into our daily
15 lifestyle in North West River.

16 As the panel has already heard,
17 the effects from the Upper Churchill development
18 are visible to us every day as we watch the river
19 flows change, the tides rise and fall and when we
20 travel, hunt and fish on the waterways that define
21 our community and our lifestyle.

22 Many of these changes have been
23 slow and barely noticeable and have taken several
24 generations to manifest themselves.

25 North West River residents are

1 aware that they have already been victims of the
2 changes from the Upper Churchill, and the damage
3 has not yet been rectified. But it's certainly a
4 large concern. It must be rectified.

5 The Council wants this situation
6 rectified, starting with research into the effects
7 of salination and lower water levels in the Grand
8 Lake, Little Lake and North West River water
9 bodies.

10 This should include, but not be
11 limited to, a possible low dam at the rapids
12 between Grand Lake and Little Lake in order to
13 remediate the salination of Grand Lake.

14 Another item here would be to
15 clear-cut the reservoir area before it is flooded
16 in order to ensure that mercury levels are lowest
17 and that the old-growth forest does not become a
18 wasted resource.

19 Tied in with that would be Point
20 C, in order to ensure a healthy but sustainable
21 forest industry is established in the region, the
22 Proponent may offer to build the secondary
23 processing plant that is already planned for the
24 region.

25 Those two items together will help

1 to ensure Item D, to ensure that mercury levels are
2 not increased in the watershed.

3 We have a concern that we need to
4 ensure that water flows into Grand Lake are not
5 further reduced by the development. We have
6 already seen quite a change in water levels with
7 the Upper Churchill project.

8 We're very concerned that should
9 levels drop further in Grand Lake we're going to
10 have not a freshwater lake whatsoever there any
11 more. It will be salt water, changing that area
12 considerably.

13 We suggest that a panel be formed,
14 including members of the public as well as members
15 of Nalcor, for ongoing monitoring of effects during
16 the development.

17 Item No. 3. Given that the
18 project and related transmission line in its
19 construction phase would create an influx of
20 workers and increase demands for municipal and
21 other services, the present overloaded
22 infrastructure in our town needs to be improved,
23 especially -- and there's quite a list here --
24 electrical power distribution, both to our area and
25 within our area. Communications, phone and

1 internet.

2 The sewage treatment and water
3 supply. Waste disposal and recycling. Health and
4 social services. Recreation and cultural services.
5 And residential land development.

6 An impact benefits agreement
7 should be required with all the governments in all
8 the communities that will be affected by the Lower
9 Churchill project to ensure benefits flow to all
10 residents affected by this project.

11 Thank you, Mr. Jacque, by the way,
12 for your earlier presentation. That helped out
13 immensely here.

14 Our fourth point, education and
15 training: It is not acceptable to provide only
16 trades-related programs for the short-term
17 construction jobs and limited maintenance careers
18 leaving a largely unemployed work force that has to
19 seek opportunities elsewhere after the development
20 is finished.

21 Now, initially we were talking
22 about we would like to see LATP's mandate change.
23 We may have to actually look at providing a
24 different source of training, but we want to see --
25 rather than two-year apprenticeship-type programs,

1 we want to see that there will be four- and five-
2 year programs, preferably in the sciences, that
3 will allow people to be in all of Upper Lake
4 Melville, or Labrador, to be able to get the higher
5 level long-term jobs that are provided by such a
6 project as this, rather than just a two- or five-
7 or eight-year job, and then it's gone.

8 So we would like to see where
9 people are actually able to get higher education,
10 in a Bachelor of Sciences or above, and we want to
11 ensure that that's available for all residents
12 here, not strictly aboriginal groups.

13 Our fifth item, preserving the
14 heritage of the area: The first permanent trading
15 post was established at what is now North West
16 River in 1743, by the French. The English took
17 over the area in 1763, and the Hudson's Bay Company
18 established a trading post there in 1836.

19 European immigration and
20 settlement followed along the banks of Lake
21 Melville, the Grand River, and the area of North
22 West River and Grande Lake.

23 Settlers fished the abundant
24 salmon and cod stocks -- seen any cod stocks a
25 round here lately? -- and trapped

1 throughout the region, and there was a thriving
2 lumber business. The trapping heritage is well-
3 documented and many traditional traplines are still
4 used today by descendants of the original settlers.

5 To address the issue of the loss
6 of these lands, both from the upper Churchill and
7 possible loss from the Lower Churchill, Nalcor
8 should consider establishing a legacy fund to
9 recognize the settler heritage, and include in it
10 compensation for loss of traditional trapping
11 grounds, to descendants of the original trappers;
12 recognition of the trapping heritage by way of
13 information programs, permanent displays, and a
14 tourist kiosk at the rapids or the Town of North
15 West River; to honour both the height of land, and
16 Grand River, Grand Lake, Naskaupi trappers.

17 Funding to develop ecotourism
18 operations to replace loss of trapping, fishing and
19 hunting habitat should be considered as well.

20 Our sixth item is emergency
21 services: Should there be a catastrophic event,
22 such as a dam failure, the community of Happy
23 Valley-Goose Bay will likely be left without a
24 large portion of its basic municipal services,
25 water and sewer.

1 The location of the terminal
2 station in Happy Valley, supplying our town and
3 Sheshatshiu, leaves us vulnerable to power failure
4 as well. There is unlikely to be adequate diesel
5 generation available at that time to meet the needs
6 of all communities of Upper Lake Melville.

7 In order to assist the other
8 communities in the Upper Lake Melville region, and
9 to maintain our own municipal services, water,
10 sewer, fire, health and communication, we require
11 generators for the public buildings to house
12 displaced persons from catastrophic events;
13 emergency power available for municipal water and
14 sewer services; an emergency alerting and
15 information system for the region; and an emergency
16 communication system for the region.

17 Item number 7, alternative power
18 for the coastal communities: The Government of
19 Newfoundland and Labrador, as well as the
20 Proponent, must seriously entertain alternate
21 energy sources for coastal communities now served
22 by diesel generation. You guys are going to find
23 that a big deal breaker around here, and probably
24 have heard about it many times.

25 Item number 8, alternative energy

1 and energy conservation programs instituted to
2 mitigate price increases: The Proponent speaks
3 readily of the necessity of raising power rates in
4 the coming years. Many of our citizens are retired
5 or near retiring, and live on fixed incomes in an
6 area where the cost of living is already above
7 average.

8 The Proponent should be required
9 to introduce further programs and benefits to
10 encourage conservation of electricity and reduce
11 the costs of home heating, such as:
12 off-peak rates for consumers, and
13 financing programs and incentives;
14 to use new energy-efficient
15 heating methods, such as electric thermal storage,
16 and air and geothermal source heat pumps;
17 appliance retirement replacement
18 programs; conversion to high-energy -- or high-
19 efficiency LED street lighting;
20 business energy rebates for
21 conversion to more energy-efficient equipment and
22 lighting systems; and
23 pilot projects and further
24 research and development into alternative sources
25 of energy needs to be seriously done.

1 Thank you for your time here. If
2 you have any questions, I'd be happy to try and
3 answer them for you.

4 CHAIRPERSON GRIFFITHS: Thank you
5 very much, Mr. Barkman -- a very complete, concise
6 presentation, I must say.

7 Questions from panel members?

8 Yes?

9 --- QUESTIONS BY THE PANEL:

10 MEMBER IGOLIORTE: Thank you very
11 much.

12 Just one quick question with
13 respect to environmental concerns, and salination
14 of Grand Lake, Little Lake and North West River.

15 Are you referring specifically
16 there to the presentation by Mr. Ted Blake about
17 his ideas for remediation?

18 MR. BARKMAN: Correct. It has
19 come up many times in the last six or eight years,
20 anyway, as had been mentioned many times, but it's
21 been an ongoing concern of ours.

22 CHAIRPERSON CLARKE: Just a quick
23 one: You raised something that I hadn't thought of
24 before when you were talking about emergency
25 services, and if there were a dam break, because I

1 hadn't thought of the North West River as being
2 affected by a dam break in terms of the flood
3 levels.

4 But what you were saying was that
5 there would be quite an impact in Happy Valley-
6 Goose Bay as to their services, and in that respect
7 it would cause an overflow, in your view, in terms
8 of the demands that would be put on North West
9 River.

10 And I was wondering if that -- if
11 I'm understanding that correctly and, if so, if you
12 could elaborate on it a little bit?

13 MR. BARKMAN: Absolutely. It's a
14 concern of ours, that should there be some type of
15 catastrophic event, not only would our own services
16 be cut -- particularly, power would be a large one,
17 and communication -- but also we could
18 theoretically be expecting to get victims from such
19 catastrophe in North West, and have to house, feed
20 and provide services for them as well.

21 CHAIRPERSON CLARKE: Okay, thank
22 you for that clarification.

23 CHIRPERSON GRIFFITHS: Yes,
24 Mr. Barkman, I'm just looking back at the first --
25 at the beginning of the presentation, you were

1 expressing these residents' concerns -- just a
2 couple of questions about that.

3 Have you held meetings in the
4 community? I mean other than us when we came for
5 the hearing.

6 Are you drawing these points from
7 what you've heard during the hearing, or has the
8 town held its own meetings?

9 MR. BARKMAN: No, these are the
10 results of impromptu meetings, as well as the panel
11 discussion. And when was that? Two weeks ago or
12 so?

13 CHAIRPERSON CLARKE: And can you
14 tell me about the amount of contact the town has
15 had with Nalcor, and the consultation, and what
16 sort of process has gone on?

17 MR. BARKMAN: I quite honestly
18 can't answer that. I don't believe we've really
19 been involved with Nalcor on this at all, at this
20 point.

21 Now, correct me if I'm wrong --
22 okay, he says we have been. Feel free to jump in
23 here, because I'm not quite sure myself.

24 MR. G. BENNETT: I have been
25 personally at several meetings with the town, both

1 in respect of this project and other activities
2 with Nalcor, and I know that the town has also been
3 inviting some of the emergency preparedness
4 meetings that I've been in recently as well, so
5 there is engagement.

6 I guess there are some -- I would
7 suspect, some different views in terms of the
8 requests and issues that are being raised in this
9 presentation, in terms of expectations and how we
10 line up with government policy and some of the
11 other issues that we've talked about throughout the
12 course of the hearing.

13 But, yes, there have been a number
14 of the meetings. We've had open houses for the
15 project in North West River when we prepared for
16 the environmental impact statement submission. We
17 have been in the town directly with a number of
18 open houses, and presentations and public events,
19 on the project.

20 CHAIRPERSON: Okay. Mr. Barkman?
21 That's fine?

22 MR.BARKMAN: That's fine. I stand
23 corrected. We're a fairly young town council, as
24 you know, at this point, so we don't always know
25 exactly what's going on or has gone on.

1 MR G. BENNETT: And that's an
2 excellent point. I think there has been a fair bit
3 of turnover on the community council. People that
4 we have been dealing with in the past are no longer
5 on the council. That is a good point.

6 There has been a fair bit of
7 turnover on the community council and people that
8 we have been dealing with in the past are no longer
9 on the council. That is a good point.

10 CHAIRPERSON GRIFFITHS: Okay, well
11 I think that's -- I'll now ask -- that concludes
12 questions from the panel. So Nalcor do you have
13 any questions for Mr. Barkman?

14 MR. G. BENNETT: No, I think
15 there's nothing on our side and probably it is a
16 good point for us to continue to dialogue and
17 engage in with the town. That's something that
18 we'll be doing over the coming months.

19 CHAIRPERSON GRIFFITHS: Are there
20 some questions from other people in the room for
21 Mr. Barkman on the -- no, it appears not. Oh, no.

22 Okay, well thank you very much,
23 Mr. Barkman, for coming back and making a
24 presentation. We really appreciate that.

25 MR. BARKMAN: Don't you sometimes

1 wish everybody was as brief?

2 (LAUGHTER)

3 CHAIRPERSON GRIFFITHS: Our next
4 presenter is Kerry Saner-Harvey, Mennonite Central
5 Committee of Newfoundland and Labrador.

6 --- PRESENTATION FROM MENNONITE CENTRAL COMMITTEE
7 OF NEWFOUNDLAND AND LABRADOR BY MR. KERRY SANER-
8 HARVEY:

9 MR. SANER-HARVEY: Thank you so
10 much to the panel. And I will try to be concise as
11 much as possible. Thank you.

12 I am here -- my name is Kerry
13 Saner-Harvey and I am here as a representative for
14 Mennonite Central Committee of Newfoundland and
15 Labrador which has had a presence in the province
16 for more than 55 years.

17 MCC is a non-profit non-
18 governmental organization that has worked
19 throughout the world in the field of sustainable
20 development and local capacity building.
21 Currently, the emphases on our work in Canada
22 include environmental justice, food security,
23 restorative justice, peace building and balance
24 reduction initiatives.

25 In Manitoba we have been long-term

1 partners with the Interfaith Taskforce on Northern
2 Hydro Development. Having lived in Northern
3 Manitoba myself, I've witnessed some of the
4 violence and displacement hydro power has caused,
5 as well as the increasing complexity facing many
6 First Nation communities as they manage the costs
7 and benefits of existing and potential hydro
8 developments.

9 MCC strives to live and serve
10 justly and peacefully in each relationship,
11 incorporating listening, learning, accountability,
12 mutuality, transparency, and integrity. So I wish
13 to share several concerns I have about the proposal
14 drawing from the learnings of our organization.

15 Here in Labrador, I am a come-
16 from-away having lived in Happy Valley for three
17 years. But since then I too have canoed Grand
18 River with Elizabeth and Francis Penashue, and
19 created the video she showed the panel in
20 Sheshatshiu. I too know the intense beauty of the
21 river and I feel the loss that has already happened
22 from the Upper Churchill.

23 The concerns I wish to share today
24 build on the week's topics of cultural impacts and
25 crosscutting issues. Multiple people have already

1 spoken about impacts to indigenous cultures, and I
2 believe what is also at stake white European
3 Canadian culture, if you will. I am aware that
4 this culture is hardly an homogenous set of
5 cultural norms and values but it is an entity that
6 we've created nevertheless and one that would be
7 disastrous for us to ignore.

8 Today I wish to speak about the
9 impacts to Euro-Canadian culture in relation to our
10 legacy of colonialism and our energy production.
11 In addition, I'd like to share a concern related to
12 food security that also intersects with the
13 crosscutting principles of sustainability and the
14 precautionary principle.

15 For these reasons and for many
16 already shared by others in these proceedings, MCC
17 Newfoundland and Labrador does not support the
18 Lower Churchill Project proposal.

19 Occasionally the comment, the
20 Lower Churchill project is a tool of Colonialism
21 has been thrown around as a rhetorical flourish,
22 perhaps even an accusation. So I want to be
23 careful here, because I don't think there is that
24 there is necessarily any malicious intent on the
25 part of the Proponent or the provincial government;

1 rather I believe Colonialism is so much a part of
2 our capitalist progress-oriented Canadian culture
3 that we are often not aware of it. If our Euro-
4 Canadian world view is the water around us, then
5 systemic colonization is the methylmercury in our
6 waters that has poisoned not all indigenous peoples
7 but also ourselves.

8 A culture based on the domination
9 of others is a culture that is living in the
10 continuous state of unhealed perpetrator-induced
11 trauma. Since European contact we have
12 systematically created a society in which the
13 indigenous nations of the continent are
14 disempowered and second class. Sometimes it's come
15 in the form of overt violence, genocide, and
16 displacement but it is also more subtly present in
17 our corporate and economic structures, as well as
18 our education, justice, and political systems that
19 privilege a Euro-Western world view.

20 I say "we" because I include
21 myself in these statements. As the white male, I
22 too benefit from the privilege of being part of the
23 dominant white culture and therefore see it as my
24 responsibility to use that privilege to create
25 awareness and a more just society.

1 First, I want to suggest that just
2 because we use the term "sustainable development"
3 does not mean a project is not Colonial. As MCC
4 has at times painfully discovered, our notion of
5 sustainable development can still be perceived as
6 an imposition by indigenous persons because it
7 presupposes that all peoples have a self-perceived
8 need and desire to develop something. For a
9 culture that values a stasis of harmony and
10 balance, a development strategy can represent an
11 intrusion, even a pressure to compromise their
12 sovereignty or cultural identity.

13 According to George Tinker,
14 Professor of American Indian Cultures and Religious
15 Traditions, this ongoing development project which
16 has been and is still being imposed on the Indian
17 people, destroys the communitarian values which has
18 been and is still being -- which -- and structures
19 of Indian Nations and replaces them with
20 individualistic values and social structures that
21 conform to the cultural norms of dominant powers,
22 power structures. Invariably development has left
23 devastation and confusion in its wake.

24 Over the last 500 years of
25 colonizing the indigenous peoples of North America,

1 we have on many occasions sought after a particular
2 area of land, or resource on that land, that was
3 important or sacred to some indigenous nation. And
4 when their consent was acquired, either through
5 financial compensation or through some other form
6 of coercion we then felt somehow vindicated,
7 justified that we really didn't do anything unjust,
8 that it really was their choice and we all mutually
9 benefitted from the deal.

10 For the Innu today, after being
11 colonized and displaced from their land and after
12 creating the Upper Churchill development without
13 their say, is it really a choice when we ask them
14 to choose between accepting the money and the land
15 deal for their official consent, or to not accept
16 it and to lose the benefit, knowing full well, that
17 the dam could more than likely happen if they don't
18 accept it?

19 While it is not my place to say
20 what they should do with that choice, nor can I
21 speak for them, I do question to what degree it is
22 a free and informed consent. I do believe consent
23 to the hydro project should not be a condition of
24 land claim settlement.

25 Additionally as several Inuit and

1 Métis presenters have noted, there has been little
2 consultation with them, nor acknowledgement of
3 their historic use of the river or plans for
4 redress. It is distressing to me that the
5 Proponent has to try to convince the Nunatsiavut
6 President in these proceedings that they were
7 consulted on this project. And the injunction
8 would seem to indicate that the NunatuKavat has at
9 the least not felt heard as well.

10 A project that was truly welcomed
11 by the indigenous people of Labrador would be one
12 that was done in full co-operation with the Innu,
13 Inuit and Métis and others at every stage of the
14 process. This is ultimately about process,
15 approach, and a relationship.

16 Essentially our government has
17 decided this project will happen, we simply need to
18 make the proper deals and concessions to the
19 indigenous nations. So my concern that this is a
20 white project imposed on their river, rather than
21 an initiative coming from within their
22 sovereignties or in cooperation with them, and
23 therefore colonization is an integral part of the
24 project.

25 What are the ways that the effects

1 of colonization can be mitigated? That's a
2 challenging question. A good place to start is to
3 only consider the project if it's in a fully
4 welcomed cooperation with local indigenous groups
5 and not merely consultation. Short of this,
6 significant resources could be committed locally
7 for mental health, trauma and addictions, balance
8 prevention, affordable housing, and other social
9 services as has been talked about before and
10 requested by indigenous groups.

11 To bring 2,000-plus workers into
12 Labrador and to provide them with needed services,
13 but not actively ensure also that there are also
14 provided for the local population also suggests
15 colonization. At the same time investing money to
16 treat symptoms of colonization does not itself
17 change the structures and relational power dynamics
18 of our society.

19 The reason I believe this broad
20 concern falls into the mandate of this
21 environmental assessment panel is because the
22 impact to our Euro-Canadian culture is real and
23 significant. I firmly believe it is just as
24 destructive to my culture to allow colonization to
25 continue and not to allow space for indigenous

1 peoples to find truly adequate and lasting
2 solutions to the poverty and unhealed trauma
3 resulting from years of colonization and
4 displacement. Such solutions would be
5 comprehensive, socially, economically, and
6 spiritually; inseparable from the environment, and
7 they will not come in the expedient form of
8 corporate dollars, undergirded by our addictions to
9 profit and progress.

10 I also presented today because
11 those of us in this room do have some power to move
12 this in a different direction than the trajectory
13 that we've been on historically.

14 A second but related concern has
15 to do with our patterns of energy production.
16 Following up on what Jill Airhart shared about the
17 reasons to diversify our production, I would add
18 another reason for diversification. Small scale
19 projects in which the consumer not only consumes
20 but is also potentially a part of the production
21 helps reconnect us to the sources of our energy and
22 therefore helps prevent the type of indifference
23 that leads to overconsumption and waste.

24 As Marcus Rempel, Coordinator for
25 the Interfaith Taskforce on Northern Hydro

1 Development comments:

2 "The culture to which I
3 belong has made unfeeling
4 contact with the world a
5 defining feature of our
6 economy. I eat food grown in
7 fields I have never walked
8 and picked by workers I will
9 never meet. I drive a car
10 fuelled by gas from oil
11 fields I have never seen and
12 when I switch on my light
13 every morning, I use
14 electricity from a mighty
15 river whose spray can never
16 touch my face."

17 Our society's instinct is to pay
18 the light bill, and then disentangle, to separate
19 ourselves as cleanly as possible from the
20 historical, social and ecological mess that
21 remains.

22 However, the inescapable fact that
23 we rarely articulate is that we do not desire
24 oppression and violence, but we do require it to
25 live as we do.

1 In the movie "The Fisher King",
2 Robin Williams' character says to his panhandler
3 friend after someone drops some money in his cup,
4 "Hey, that guy didn't even look at you". The
5 panhandler responds, "He pays so he doesn't have to
6 look".

7 I believe if this river were to be
8 running along the banks of Ottawa or St. John's the
9 proposal would receive much more intense scrutiny.

10 But more than simply an issue of
11 remoteness, this too is a continuation of the
12 racial structures of our society. It is a
13 privilege that European-Canadians share to be able
14 to support the most expedient solutions because for
15 many they are happening far away from me and to
16 ignore the destruction and injustice caused by such
17 projects.

18 Finally, if the Lower Churchill
19 project proceeds it will have consequences, not
20 just for the next 10 years but for many decades to
21 come.

22 Even if we can ward off the more
23 catastrophic changes of climate change global food
24 production will nevertheless be a major concern and
25 cause of potentially violent conflict in the next

1 next two decades.

2 Already food prices are excessive
3 here in the Lake Melville region and much worse on
4 the coast. For Rigolet along Lake Melville and the
5 north coast, this could be quite serious.

6 Even though a solid scientific
7 prediction may be difficult to make, if we are to
8 take the precautionary principle seriously a food
9 shortage could be an impact of potential
10 significance. Too much depends on the health of
11 this river for us to risk another dam.

12 In conclusion I too am a consumer
13 of electricity and I am deeply aware that this
14 energy must be produced somewhere by some method.

15 I also acknowledge that we at a
16 global warming crisis point, a crisis we are all
17 undoubtedly in denial to some degree.

18 So it is imperative that we pro-
19 actively change our technology and I acknowledge
20 that hydropower is indeed greener than fossil
21 fuels.

22 But if the project really was
23 about climate change and carbon emissions, rather
24 than economic gain, and bravado of our politicians,
25 what would be at the table today would not be a 60

1 year old hydro technology but rather the cleanest,
2 lowest emitting, most efficient and cost-effective
3 technology we could come up with today.

4 With respect to the Proponent, as
5 an energy company with significant resources, I
6 urge us to not be too easily swayed by political
7 incentives, but to rather invest in truly wise
8 options for the local and global environment.

9 I hope that those of us here today
10 can use the opportunities available to find better,
11 long-term, low-emission alternatives to the Lower
12 Churchill project, but also ones that are developed
13 in right relationship with all peoples and
14 cultures.

15 Thank you for your time.

16 CHAIRPERSON GRIFFITHS: Thank you
17 very much, Mr. Saner-Harvey, for your presentation.
18 I really appreciate that.

19 I will now ask if there are any
20 questions from the panel.

21 And Nalcor, do you have any
22 questions?

23 MR. G. BENNETT: No, we're fine.
24 Thank you.

25 CHAIRPERSON GRIFFITHS: Are there

1 some other people in the room who have some
2 questions for the presenter? Yes? And these are
3 questions for the presenter.

4 Mr. Learning?

5 --- QUESTIONS BY THE PUBLIC:

6 MR. LEARNING: John Learning.

7 I just want to clear up a
8 statement that Mr. Harvey made.

9 There's no Métis people in
10 Labrador. That's the name that's bestowed upon us
11 by the Newfoundland people. We are southern Inuit,
12 that is really what we are, not Métis.

13 MR. SANER-HARVEY: Thank you for
14 that clarification, I appreciate that.

15 When I was referring to Métis I
16 was referring to NunatuKavut and I appreciate that
17 clarification.

18 Thank you.

19 CHAIRPERSON GRIFFITHS: Okay,
20 thank you, Mr. Learning.

21 Well, I think that's it. Well
22 thank you very much, a very thoughtful presentation
23 and -- yes, I'm sorry?

24 MS. ROBERTS: I would just like to
25 make a comment.

1 And thank you very much for your
2 presentation. Your heart is where mine is as well
3 and I just want to say that I'm truly impressed
4 with your presentation because that's where I am as
5 well.

6 Thank you.

7 My name is Daphne Roberts. I'm
8 still a little bit emotional here.

9 CHAIRPERSON GRIFFITHS: Yeah.
10 Thank you very much, Ms. Roberts, for that.

11 Okay, well thank you very much.

12 I think we'll go to our third
13 presentation. And after this presentation I'll
14 allow just a few minutes for Mr. Hendriks to
15 complete unfinished business from this morning and
16 then we will take a break and be back for the
17 teleconference.

18 So I don't see Mr. Marcocchio and
19 we're actually almost on time. All right, well
20 there you go.

21 So, Mr. Hendriks, I see you're
22 leaping up to fill the vacuum.

23 MR. HENDRIKS: Yeah, I need to
24 leave later this afternoon and I had asked
25 yesterday whether I could ask the Proponent a few

1 questions that Innu had emailed to me. They're
2 very quick and then I still have that other
3 question that's more substantial; could I do that?

4 CHAIRPERSON GRIFFITHS: Yes, I was
5 really calling you forward for the matter this
6 morning but why don't you do that.

7 MR. HENDRIKS: Sure. Sure.

8 Following Ms. Airhart's
9 presentation Mr. Bennett indicated that as a
10 regulated utility Nalcor is required to take a
11 least cost approach to analysing the economic
12 merits of alternative energy sources.

13 And I just wondered if you could
14 identify that for the panel, Gilbert, the source of
15 this requirement?

16 MR. G. BENNETT: Sure, there's two
17 places. The first one is the *Electrical Power*
18 *Control Act*, the second would be the *Public*
19 *Utilities Act*.

20 But the *Electrical Power Control*
21 *Act* has an explicit reference to our requirement to
22 provide least cost energy -- I'll paraphrase it, I
23 don't have the reference directly in front of me
24 but in a safe and reliable manner.

25 MR. HENDRIKS: Okay, that's great.

1 Thank you.

2 So there's no requirement in the
3 guidelines, and I couldn't find one for a least-
4 cost analysis. So following -- I guess during Mr.
5 Rudd's presentation or afterwards you indicated
6 that EIS Guidelines did not specifically require
7 Nalcor to undertake a cost benefit analysis of the
8 type contemplated by Dr. Rudd.

9 And as I say, I wasn't able to
10 locate in the guidelines instructions that required
11 Nalcor to undertake least cost analysis' either and
12 it doesn't appear to me that such a requirement
13 existed in the guidelines.

14 MR. G. BENNETT: Well just to
15 clarify though, compliance with the law of the
16 Province of Newfoundland and Labrador is pretty
17 important for us.

18 MR. HENDRIKS: Right. And I'm not
19 saying you shouldn't have done a least cost
20 analysis. What I'm suggesting is that the
21 guidelines did not require you to undertake the
22 least cost analysis or the cost benefit analysis.
23 You were not prevented from undertaking some other
24 type of economic analysis such as the cost benefit
25 of an analysis.

1 Bennett?

2 MR. G. BENNETT: Well very
3 briefly, I think Dr. Rudd also said that he hadn't
4 read all of the material filed as part of the
5 environmental assessment, particularly JRP 146,
6 147.

7 To my mind, you know, the
8 sufficiency of the material filed for environmental
9 assessment was the subject of a determination made
10 by the panel and we're at this hearing today. We
11 also have a request for some additional
12 information, so I'd like to think that we've
13 complied with that requirement in the guidelines
14 and that's why we're here.

15 CHAIRPERSON GRIFFITHS: A final
16 comment, Mr. Hendriks?

17 MR. HENDRIKS: I guess I'm saying
18 in a sense there is no requirement in terms of
19 economic analysis specified in the -- is my point.
20 So I'm not saying that you didn't comply with
21 something that wasn't there. But your argument
22 earlier suggests that the cost-benefit analysis
23 couldn't be done because it wasn't required in the
24 guidelines, but yet you did a least-cost analysis
25 that also was not required by the guidelines. It

1 was required by something else, and I respect that,
2 but to say that the cost-benefit analysis can't be
3 done because it wasn't a requirement of the
4 guidelines is a bit ---

5 MR. G. BENNETT: I don't have
6 anything to add there.

7 CHAIRPERSON GRIFFITHS: Okay, well
8 thank you Mr. Hendriks.

9 I'm sorry, you're -- maybe if you
10 can speak to -- you've already spoken to the
11 Secretariat, we'll sort it out with them in terms
12 of when we deal with the other questions that you
13 wish to relay, okay? Did you say that you can't
14 stay for the rest of the day?

15 MR. HENDRIKS: Yeah, I have to
16 leave at about four o'clock.

17 CHAIRPERSON GRIFFITHS: Well,
18 we'll see, but maybe tomorrow.

19 MR. HENDRIKS: Okay.

20 CHAIRPERSON GRIFFITHS: Okay,
21 thank you.

22 So, Mr. Marcocchio, your
23 presentation is next.

24 ---PRESENTATION FROM SIERRA CLUB ATLANTIC BY MR.

25 MARCOCCCHIO:

1 MR. MARCOCCHIO: Thank you, my
2 presentation is going to be fairly brief.

3 The chair this morning indicated
4 that she would repeat the -- her statement at the
5 beginning of the day. Perhaps now might be an
6 opportunity to do that, because it will tie into
7 the comments that I have to make.

8 CHAIRPERSON GRIFFITHS: You wish
9 -- I have to -- all right, I will. You're going to
10 have to wait, I have to power up.

11 MR. MARCOCCHIO: Of course.

12 CHAIRPERSON GRIFFITHS: Can you
13 explain to me why you require me to do this right
14 now?

15 MR. MARCOCCHIO: Well, you did
16 mention that you were going to return it -- return
17 to that when you had more people here and I think
18 it's appropriate that we hear it now. I can't --
19 it's 2:15.

20 CHAIRPERSON GRIFFITHS: No, I
21 think I'm going to ask you to continue with your
22 presentation. I was going to do this of my choice;
23 I don't think I want to interrupt proceedings.
24 You're here to make a presentation, so I'm going to
25 invite you to make your presentation.

1 MR. MARCOCCHIO: Well, as part of
2 my presentation, I just wanted to extend an
3 invitation to you, to repeat that because you
4 haven't had an opportunity to do that.

5 CHAIRPERSON GRIFFITHS: I can find
6 my own opportunities, thank you Mr. Marcocchio,
7 that's not a problem. I assume what you're trying
8 to say is that your presentation is in some way
9 going to use the statement that the panel made this
10 morning, is that the case?

11 MR. MARCOCCHIO: I will refer to
12 it, yes.

13 CHAIRPERSON GRIFFITHS: In which
14 case you should probably quote it, but I don't want
15 to get into a ridiculous back and forth. I will
16 read the -- you just wait, I will read the
17 statements so that those people who were not here
18 know what this conversation is about.

19 MR. MARCOCCHIO: Thank you.

20 CHAIRPERSON GRIFFITHS: I trust
21 your presentation is actually about the matters
22 that we're looking at around environmental
23 assessment. It's not a procedural presentation, is
24 that the main thing?

25 MR. MARCOCCHIO: Well ---

1 CHAIRPERSON GRIFFITHS: Because if
2 you wish to make comments about procedure, there's
3 a different time to do that.

4 MR. MARCOCCHIO: They're linked in
5 this case and that's why I prefer that you ---

6 CHAIRPERSON GRIFFITHS: Okay, here
7 we go.

8 So for those of you who were not
9 here this morning, as part of the opening of the
10 session the panel asked me to make a brief
11 statement. So here it is; it's just one paragraph.

12 The panel has consistently
13 indicated that they want these public hearings to
14 proceed in an atmosphere of courtesy and mutual
15 respect. The panel has been satisfied by the
16 demeanour of most participants most of the time,
17 and wishes to acknowledge the patience and courtesy
18 shown during these long and tiring days of
19 hearings.

20 However, the panel wants to remind
21 some participants that certain behaviours are not
22 acceptable: Comments and laughter from the
23 audience when others are speaking; statements
24 attacking the personal credibility or character of
25 presenters; offensive remarks or an aggressive

1 style of questioning.

2 Please cooperate with us during
3 the remaining hearing sessions to ensure that the
4 focus remains on eliciting information that will be
5 helpful to the panel's deliberations.

6 If this request is disregarded,
7 the panel may have to change questioning
8 procedures, which we have not done to this point.

9 I would like to commence with your
10 presentation, Mr. Marcocchio.

11 MR. MARCOCCHIO: Thank you, as
12 we've heard here the -- today, the technical
13 process and the information here is onerous for
14 most people in the community. Those that have been
15 here and participated almost daily should be
16 commended for their willingness and ability to
17 stick to a process that I think everyone will agree
18 is both involved and laden with jargon, and
19 technical issues that are difficult for most people
20 to understand.

21 The Proponent has subjected to
22 ridicule and *ad hominem* attacks repeatedly from the
23 witnesses whose comments they have chosen not to
24 deal with the substance of, but instead have
25 engaged on personal attacks on these individuals as

1 a way of somehow attempting to discredit them.

2 I'm extremely disappointed that
3 the panel has chosen not to stop the *ad hominem*
4 attacks and that has allowed the tone and tenor of
5 the proceedings to deteriorate and degenerate, so
6 that the justifiable scorn and contempt for the
7 comments often made by the Proponent that are self-
8 contradictory and that fly in the face of the
9 evidence that people here have experienced and
10 lived with, and continue to deal with; a Proponent
11 that seems arrogant, colonial in its attitude, and
12 insensitive to the concerns of the community.

13 Your Co-chair has chosen to allow
14 interventions that's broken the décor and the
15 process by allowing interruptions by a
16 representative from the Provincial Justice
17 Department, to interrupt legitimate and respectful
18 questioning. He chose later to make, if I may, a
19 somewhat weak apology for allowing that breach of
20 protocol, but it clearly has compromised the panel
21 -- at least the perception of the panel's
22 independence in this to the detriment of the
23 process and to the detriment of the panel.

24 CHAIRPERSON GRIFFITHS: Mr.
25 Marcocchio, I specifically indicated that this was

1 the time to make presentations regarding the
2 substance of the environmental assessment review.
3 You're making a process -- a comment on process. I
4 said there was another time to do that.

5 So are you going to get on to a
6 presentation that deals with the actual substance
7 of the Environmental Impact Statement and the
8 review that we're conducting ---

9 MR. MARCOCCHIO: Well, let me tell
10 you ---

11 THE CHAIRPERSON: --- or are you
12 going to continue with a complaint about process?

13 You're entitled to file a
14 complaint about process, but I'm just concerned
15 about the timing that you've chosen to do this,
16 when I specifically asked you.

17 MR. MARCOCCHIO: I'm apparently
18 unable to communicate effectively my concerns that
19 these process issues have in fact hindered and
20 limited the willingness and ability of folks to
21 participate fully and address these things because
22 of the ridicule that has been -- come from the
23 Proponent, and increasingly the bending of process
24 to facilitate the kind of manipulation that we've
25 seen here. It's unfortunate, and I think that it

1 does a discredit to the process.

2 I hope that many of the issues --
3 I mean, I'm certainly willing to accept
4 responsibility for my actions, but when I hear the
5 *ad hominem* attacks and vilifying me personally, the
6 way the Chair allowed today from the liar from the
7 -- from the Proponent's table without comment and
8 without challenge, one has to wonder about the
9 independence and the intention of the Chair
10 allowing those kinds of unjustified vilification of
11 people here trying to participate in good faith in
12 a complex process.

13 CHAIRPERSON GRIFFITHS: That's --
14 and that concludes your comments on this matter?
15 And I assure you that the panel will, as we have
16 done, we've done with other people who've risen to
17 make their concerns known about process matters,
18 the panel will certainly take it under advisement.

19 MR. MARCOCCHIO: I'll just finish
20 by saying that the concern and the -- to my way of
21 thinking, the entirely appropriate contempt that
22 have been shown by the rural communities, both by
23 the Proponent and most recently by the strong and
24 clear message to the panel that we've heard from
25 all of those communities, that they have been

1 treated like second class citizens and that their
2 concerns, both with respect to local benefit from
3 these proposals and to the respect afforded them by
4 the panel by refusing to engage in a face-to-face
5 meeting that they all expected to have, diminishes
6 their input, has diminished their sense of
7 empowerment and has diminished this panel process,
8 who seems more concerned with complying with
9 external deadlines than they are with conducting
10 fair and honest hearings into these serious issues.

11 I do urge you to make the time and
12 to find a way -- I think those young people from
13 Cartwright yesterday very gently and sweetly said
14 "You know, we have a link by a road." There really
15 was no reason not to get there, that I can see.
16 And I think it's not too late for the panel to make
17 amends and to go there to those communities.

18 Communities dependent on diesel
19 fuel for their power and anyone sensitive to the
20 social justice issues understands that they're
21 being dismissed as second class citizens of this
22 province.

23 And once again I would urge the
24 panel to recognize and acknowledge that the ad
25 hominem attacks when the Proponent really can't

1 deal with the substance is both the last refuge of
2 scoundrel and entirely inappropriate for these
3 things where people have taken a considerable
4 amount of time and energy, and to be vilified and
5 attacked because one wants to participate fully in
6 this, the way I was today, really needs some remedy
7 and reproach from the Chair that to date has not
8 been forthcoming. It's never too late to do the
9 right thing.

10 CHAIRPERSON GRIFFITHS: Well,
11 thank you for your presentation, Mr. Marcocchio.

12 I'm going to get you to sit down I
13 think now please. I'm not going to ask for
14 presentations -- for questions because I don't
15 believe that -- I think you made a process
16 statement. So at this point I'm not going to ask
17 for questions about that. So the panel will take
18 your concerns under advisement.

19 We are going to take a break.

20 I am going to just repeat to
21 everybody, this includes yourself, it includes
22 everybody else, and it includes the Proponent, that
23 the panel's statement was a request for everybody
24 to cooperate in establishing perhaps a little lower
25 key and perhaps at times a more civil atmosphere in

1 the hearings.

2 Because I think there's been quite
3 a number of comments that have come from different
4 people from different parts of the room during the
5 last -- particularly the last few days and last
6 week. I think tempers are getting a little frayed.

7 And the panel is basically asking
8 for everyone to try and tone this down, stop making
9 accusations about other people's motivations or
10 agendas and can we please focus on the information
11 that we're trying to elicit from all of you that is
12 going to be helpful to the panel in our
13 deliberations.

14 And let me say, for the most part,
15 we have been -- we're very grateful for the time
16 that people are putting into this, and yes, I know
17 that this kind of a process is a tough one for lots
18 of people and it's tough for us. I'm not
19 understanding everything that comes before me, I
20 can assure you, get my head around it. We do
21 understand that. Everyone I think is -- most
22 people -- everyone most of the time is making a
23 very honest effort and we really appreciate that,
24 and that is what the panel is requesting for people
25 to do.

1 And we've had some unfortunate
2 incidents in the last couple of days and I'm hoping
3 that we can see the end of those and we can move on
4 through this process.

5 So thank you, Mr. Marcocchio. We
6 do hear you. We will go back and discuss whether
7 -- what further steps need to be taken. So thank
8 you.

9 We will take a break and we'll
10 come back at quarter to three and then we'll come
11 to the next presenter.

12 --- Upon recessing at 2:30 p.m.

13 --- Upon resuming at 2:52 p.m.

14 CHAIRPERSON GRIFFITHS: Good
15 afternoon again. We will resume the afternoon
16 session.

17 Our next presenter is on behalf of
18 Grand Riverkeeper, it is Dave Rosenberg and I
19 understand he's on the telephone right now.

20 Ms. Benefiel, you're going to make
21 a brief introduction, are you? Excellent.

22 MS. BENEFIEL: Good afternoon, Dr.
23 Rosenberg. It's Roberta here. How are you?

24 DR. ROSENBERG: Good afternoon.
25 I'm fine. How are you?

1 MS. BENEFIEL: Great. Great.

2 I just want to tell the panel, and
3 the Proponent, and the audience a little bit about
4 Dr. Rosenberg.

5 We've heard several references to
6 papers that he's done from both directions, from
7 the Proponent's viewpoint, from our viewpoint.

8 Dr. Rosenberg has a PhD in aquatic
9 equality and tomology at the University of Alberta
10 where he received his PhD.

11 He's been in the workforce for
12 quite a long time and retired in 2001. He's had
13 experience with environmental impacts on the
14 Mackenzie Valley gas line, the Churchill/Nelson
15 River diversion. He's been part of a team studying
16 ecological effects of experimental reservoir
17 creation and operation.

18 And he's the managing editor -- or
19 was the managing editor until 2005 of the Journal
20 of North American Benthological Society -- a mouth
21 full. He's also a co-editor with another group of
22 people on a book called The Ecology of Aquatic
23 Insects.

24 And he has a little bit of
25 information about himself, so without further

1 adieu, here is Dr. Rosenberg.

2 --- PRESENTATION FROM GRAND RIVERKEEPER LABRADOR BY

3 DR. DAVE ROSENBERG:

4 DR. ROSENBERG: I just wanted to
5 give you some qualifications; that I had a three-
6 decade long career with the Federal Natural
7 Resource Department doing environmental impact
8 assessments, reviewing environmental impact
9 statements and establishing biomonitoring programs
10 for various environmental disturbances caused by
11 industrial development.

12 And to reiterate what Roberta
13 said, I cut my teeth on the original Mackenzie
14 Valley Gas and Oil Pipeline proposal in the 1970s,
15 and in the '80s I was part of a research team that
16 looked at the environmental and social effects of
17 the Churchill/Nelson River diversion in Northern
18 Manitoba and the consequent flooding of Southern
19 Indian Lake.

20 In the 1990s I was part of a
21 research team that developed a biomonitoring
22 program using aquatic invertebrates for the Fraser
23 River in British Columbia.

24 During my career I was also
25 involved in reviews of EIS' of other hydro

1 developments, mines of various kinds, pulp and
2 paper mills and so on.

3 So I want to introduce my comments
4 today by first stating that I contend that
5 environmental impact assessment has not progressed
6 much in the past at least three decades that I've
7 been -- was a practicing scientist in Canada.

8 It usually is a rigidly defined
9 bureaucratic process. It produces large amounts of
10 descriptive work that does little to predict the
11 effects of the upcoming development.

12 The pre-development phase is very
13 important in trying to predict the effects of the
14 development, and my contention is that the
15 environmental impact assessment should take a more
16 experimental approach to frame predictions.

17 These predictions should be
18 followed up in post-project monitoring to measure
19 their accuracy and in this iterative fashion EIA
20 improves over time. Post-project monitoring should
21 inform mitigation, which then should be carried out
22 in an adaptive management process.

23 The other part of my comments have
24 to deal with cumulative environmental effects of
25 developing entire river systems. These also have

1 not been handled especially well by environmental
2 impact assessment in this country.

3 These kinds of effects are
4 noticeable at large, even global scales, but are
5 usually handled instead by research programs or
6 studies not environmental impact assessments.

7 So I want to spend the rest of
8 this short report examining these two deficiencies
9 in most environmental impact assessments of hydro
10 development. And I'll start with some more
11 detailed comments on post-project monitoring.

12 A study design having a pre-
13 development predictive phase, and it's important to
14 include a go/no-go option in this pre-development
15 predictive phase, and a post-development monitoring
16 phase as part of an optimal framework for assessing
17 hydroelectric developments.

18 Moreover, and I'd like to give you
19 a quote from a paper published by Bob Henke and his
20 associates in 1984, and this is in an exhaustive
21 study of the effects on -- of the environmental
22 effects on Southern Indian Lakes flooding:

23 "Pre-development predictions
24 alone are not adequate to
25 protect the habitat or the

1 resource users. Such
2 predictions should be
3 recognized as planning aids
4 that require testing in the
5 post-development period to
6 establish their veracity and
7 complete the environmental
8 assessment process."

9 Post-project monitoring is also
10 useful to establish the need for environmental
11 mitigation and compensation for resource users.
12 The lack of post-project monitoring does not allow
13 the pre-development predictions made in the
14 environmental impact assessment to be tested, so
15 EIA, environmental impact assessment, doesn't
16 improve.

17 The power of an adequate post-
18 project monitoring program was demonstrated by
19 Henke and his colleagues in their study of the
20 effects of the flooding of Southern Indian Lake in
21 northern Manitoba.

22 The research team found dramatic,
23 unpredicted effects, especially at higher trophic
24 levels, in the lake, yet this phase of
25 environmental impact assessment is often neglected.

1 Opponents of the development have
2 lost the battle and move on to other projects. The
3 Proponent wants to operate the development at
4 minimal cost and government agencies responsible
5 for monitoring fail to keep the Proponent's feet to
6 the fire.

7 Who monitors the monitors?

8 My perusal of Nalcor's EIS,
9 environmental impact statement, revealed vague
10 promises to do post-project monitoring, and in this
11 regard, I was interested in examining a single
12 benthic invertebrate study composed of two surveys
13 done in 1998.

14 It's hard to imagine the
15 usefulness of such limited descriptive data in an
16 environmental impact assessment, but it could be
17 useful if it formed the basis of a biomonitoring
18 program.

19 Benthic invertebrates are
20 frequently used in such programs, and powerful
21 biomonitoring methods are readily available. For
22 example, one model called The BEAST, which is an
23 acronym for the Benthic Assessment of Sediment, was
24 developed specifically for Canadian waters and has
25 been used across the country in various locations.

1 So here we have 13 years have
2 passed since 1998, in which an opportunity to
3 develop the reference condition on which a
4 biomonitoring method could be used, have
5 essentially been lost.

6 If the project is approved, I
7 would suggest that a panel of monitoring experts
8 from across Canada should be convened to help
9 Nalcor establish a scientifically defensible
10 monitoring program. Scientifically defensible is
11 extremely important.

12 I have been involved in
13 biomonitoring studies of other large industrial
14 developments that did not have sufficient
15 statistical power to measure anything with
16 certainty. So whatever program is undertaken,
17 multi-component program needs to be scientifically
18 defensible.

19 One module in this program should
20 be devoted to benthic invertebrates because they
21 are such powerful indicators. Monitoring should be
22 continued for several years of "no effects" before
23 the program is reduced or eliminated.

24 I'd like now to go to the second
25 part of my comments on cumulative effects.

1 These effects over large
2 geographic areas are not usually part of
3 environmental impact statements for hydro
4 development and there are at least two reasons
5 responsible.

6 First, the terms of reference for
7 most such environmental impact statements are too
8 narrowly drawn and miss the big picture.

9 Secondly, there are jurisdictional
10 wrangles. By that, I mean offshore areas are not
11 the purview of provincial governments and the
12 federal government is not terribly interested in
13 studying cumulative offshore effects.

14 I might add a third reason, that
15 these studies are extremely difficult to do, yet
16 large-scale hydro development is having
17 environmental effects that are now being detected
18 at global scales. Every major river development,
19 including Nalcor's, adds to the global impacts.

20 In north temperate rivers, the
21 root of the problem is alteration of the normal
22 hydrograph. Downstream offshore areas are cradles
23 of biological productivity because of the delivery
24 of nutrients by freshwater runoff and because
25 freshwater runoff to the ocean causes mixing and

1 entrainment of nutrient-rich ocean water into the
2 surface layer.

3 Hydro development in north
4 temperate rivers characteristically traps high
5 spring flows in reservoirs and releases higher than
6 normal flows in winter when the electrical power is
7 needed; thus, we have normal flows being attenuated
8 in spring and enhanced in winter.

9 Ecologically, runoff is
10 transferred from the biologically active part of
11 the year to the biologically inactive part of the
12 year. It's something like watering your garden in
13 the winter.

14 Worldwide river development for
15 all types of water use, including hydroelectric
16 development, has seriously disrupted normal water
17 flows on a global basis. It's been estimated that,
18 at present, 10,000 cubic kilometres of water are
19 impounded behind reservoirs. And that's
20 approximately equal to five times the volume of
21 water in all the world's rivers.

22 Chains of reservoirs built along
23 river systems alter the normal sediment and
24 nutrient transport and downstream deposition with
25 resulting negative ecological effects.

1 And if you're interested in the
2 details of these kinds of effects, I would suggest
3 you consult the journal called "Bioscience" of
4 September 2000. And there's a special series in
5 that particular journal on this very topic.

6 Plants and animals over huge
7 areas, continents, have also been negatively
8 affected and there are a couple of -- or three
9 papers in that "Bioscience" special series that
10 describe these effects.

11 These warning signs have been
12 revealed by careful research, and we need to heed
13 them. Acting after species have been extirpated is
14 too late.

15 Nalcor's EIS of the Lower
16 Churchill needs to include the extant Churchill
17 Falls development and the Smallwood Reservoir
18 because it is total river development that shows up
19 as cumulative downstream effects.

20 Should the project be approved,
21 the downstream offshore effect of total river
22 development and altered hydrographic conditions
23 should be examined by an appropriate scientifically
24 rigorous research program.

25 I would bet that ecological

1 alterations will be found and, in my view, it's
2 better to light a candle than to grope around in
3 the dark.

4 So, in conclusion, proponents of
5 hydro development make three claims. One, that
6 hydro is a clean energy source. Two is that water
7 flowing freely to the ocean is wasted. And, three,
8 that local residents will benefit somehow from
9 development.

10 My colleagues and I refuted these
11 claims in a 1995 paper in "Global Environmental
12 Change" and we used case histories of hydro
13 development all over the world to examine these
14 claims very closely.

15 Nalcor's EIS is typical of many I
16 have seen over the years. Claims in the Executive
17 Summary of "no major effects that cannot be
18 handled" and of "creating better fish habitat than
19 existed before" are hubris.

20 The exhaustive study of Southern
21 Indian Lake has taught us about unintended
22 consequences, and I think it's impertinent to
23 believe that human intervention can do a better job
24 of shaping the environment than thousands of years
25 of natural ecosystem evolution.

1 More attention needs to be paid to
2 the substantive issues of hydro development and
3 less to promoting the project.

4 I felt that we should expect more
5 of a contemporary EIS given the three to four
6 decades of experience that we've had in doing these
7 kinds of works.

8 And that concludes my formal
9 comments. I'd be happy to try to answer any
10 questions you might have.

11 CHAIRPERSON GRIFFITHS: Thank you
12 very much, Dr. Rosenberg.

13 I neglected to tell you who was
14 speaking, but you probably figured it out. Lesley
15 Griffiths. I'm one of the two co-Chairs of the
16 panel.

17 Thank you for your presentation.
18 I've just got one question. So we'll now have
19 questions from the panel if they have them, then
20 from the Proponent, and then I will see if there
21 are other questions from other people in the room.

22 --- QUESTIONS BY THE PANEL:

23 CHAIRPERSON GRIFFITHS: I just
24 have one question. Can you expand a little bit
25 about the purposes and opportunities associated

1 with biomonitoring? Does it go beyond monitoring
2 the health of the benthic organisms? Is it able to
3 give a more extensive picture -- that's what I
4 gather -- of the health of the ecosystem? Perhaps
5 you could say a little bit more about that?

6 DR. ROSENBERG: There are all
7 sorts of environmental components that can be
8 monitored. I use macroinvertebrates as one example
9 of a biotic group that's very frequently used in
10 biomonitoring, but you can equally study fish
11 communities or water quality or wetland existence,
12 health.

13 The large industrial study I
14 referred to had a number of different components
15 that set into a central place where these data were
16 digested.

17 So any biotic group or any
18 inorganic group like water quality can be used.

19 In the case of macroinvertebrates,
20 what happens, the current biomonitoring methods we
21 have are used mainly raise red flags. There's
22 something wrong. It's not the reference condition.
23 It's not baseline. There's something going on
24 here.

25 And then you have to go into that

1 area that's giving you the red flag and figure out
2 why the red flag has come up. In some cases it
3 could be eutrophication because the fauna changes
4 when enrichment occurs.

5 It could be industrial effluence
6 or some toxic release of some kind. Living
7 creatures are -- I guess the analogy I use is that
8 when you're doing water quality measurements, it's
9 like taking a picture, a photograph, when you're
10 using living creatures like algae or benthic
11 invertebrates, it's like taking a video because
12 they're living right there and they're telling you
13 what's happening.

14 CHAIRPERSON GRIFFITHS: Thank you
15 very much.

16 Actually, I've just got one other
17 question, because you made reference to the
18 importance of being able to learn from monitoring
19 results from other projects, and I think that's
20 been, at times, a little bit of a theme in some of
21 the discussion we've had in earlier sessions, often
22 sort of more in terms of the regret that there
23 isn't more out there to draw upon.

24 But I wonder if you've got any
25 comments about the importance of -- how you get

1 monitoring results -- if you have an extensive
2 monitoring program, how you get monitoring results
3 sort of out into a more permanent record that can
4 actually be used to inform other decision makers
5 about other possible projects?

6 DR. ROSENBERG: That's a really
7 interesting question, and that was really the
8 substance of the 1995 paper that I referred to.
9 Part of the title -- I think the title went
10 something like "Environmental and Social Impacts of
11 Large Scale Hydroelectric Development: Who is
12 Listening?"

13 And the point we tried to make in
14 that paper is that all the references that we used,
15 all the source material we used has been publicly
16 available spots.

17 So I think the data is out there.
18 It just needs to be mined and synthesized in the
19 proper fashion.

20 Now, in terms of using lessons
21 learned from previous impact assessments, if we
22 have to -- if the group that I was part of that
23 looked at the flooding of Southern Indian Lake, if
24 we had to go back and work in another similar
25 habitat, I think that we would have learned a

1 number of lessons from that study because we
2 examined the failures that we made in predicting
3 and the part predictions that -- the predictions
4 that only came partly true and the ones that were
5 totally false.

6 I think we could have taken the
7 experience with -- for example, Southern Indian
8 Lake was surrounded by permafrost. The original
9 plan was to flood it by 10 metres, and there was a
10 great human cry that went up and said, you know,
11 "That's ridiculous! That's too much. Flood it
12 three metres."

13 But the point was, as soon as the
14 water came up, it was flooded three metres in the
15 end, but as soon as the water came up and started
16 melting the permafrost, it didn't really matter if
17 you had flooded it 10 metres because the sediment
18 just let go. The permafrost was binding the
19 sediment together.

20 So if we ever had another
21 situation where a reservoir was planned for that
22 kind of a habitat, we would have known from
23 experience that, you know, you have to be careful
24 even raising the water a small amount because
25 everything was going to melt and sediment would get

1 into the lake, and we thought that that was the
2 basis of a lot of the changes we saw in the lake.

3 And that's out in the published
4 literature. So I think the data are available if
5 people have the time and the inclination to pursue
6 those publications.

7 Does that answer your question?

8 CHAIRPERSON GRIFFITHS: It makes a
9 good start. Thank you, Dr. Rosenberg.

10 Question from Dr. Doelle on the
11 panel.

12 MEMBER DOELLE: Yes, thank you.

13 I just wanted to follow up on the
14 discussion you just had with Lesley. The 1995
15 study, I'm wondering to what extent would that
16 allow kind of a tracking of what the predictions
17 were with respect to other comparable projects,
18 which of those predictions turned out to be wrong,
19 and is there enough information in that study to be
20 able to draw kind of comparisons to the project
21 that is currently proposed?

22 And if the answer to any of that
23 is yes, I'm wondering whether you'd be able to put
24 that study on the public record?

25 DR. ROSENBERG: Well, in a sense,

1 the results were peculiar to that particular
2 setting.

3 One of the things that we found in
4 that study was the so-called reservoir paradigm.
5 You know, it doesn't fit all circumstances. It's a
6 generalization that would fit situations where you
7 were creating deep reservoirs in valleys.

8 But in our situation, we were in a
9 boreal forest that wasn't terribly sloped or -- you
10 know, there wasn't a defined river channel that was
11 being flooded.

12 So I think that particular study
13 of Southern Indian Lake, the main message from it
14 is that expect things to happen. But the
15 particular setting that it's in would determine the
16 course of environmental disturbance after flooding.

17 So I think in large part, unless
18 you're dealing with a whole genre or type of
19 development that's specific to valley bottoms, that
20 has specificity in a certain kind of terrain, you
21 can probably make generalizations, but when we
22 tried to use the reservoir paradigm that was
23 developed from Russia, it didn't fit our particular
24 circumstance.

25 So there are some situations where

1 the accumulated knowledge has to be revised because
2 that particular habitat is quite different.

3 MEMBER DOELLE: Okay. So that's
4 helpful.

5 Have you done a detailed review of
6 the information that's available to us on this
7 particular project and, based on that, are there
8 any particular predictions that have been made with
9 respect to this proposed project that you want to
10 comment on?

11 DR. ROSENBERG: I have not done a
12 detailed review. I looked for areas of expertise.
13 I read the executive summary. I read material of
14 -- downstream effects material. I am slightly at a
15 disadvantage because I have a severe eye problem,
16 and so my reading has to be limited.

17 One kernel that I extracted from
18 one of the people who was part of our research
19 team, he was the fellow who started wondering
20 whether or not reservoirs were sources of
21 greenhouse gases, and I just finished corresponding
22 with him and asking for him to get involved in this
23 particular study, and it's his belief, for example,
24 that greenhouse gas evolution will depend on the
25 extent of peat land that is flooded.

1 So that's a generalization that I
2 think is useful. If a lot of peat lands, which are
3 carbon sinks, are to be flooded, then I think
4 there's going to be a greenhouse gas problem that's
5 probably not anticipated otherwise.

6 MEMBER DOELLE: Thank you.

7 CHAIRPERSON GRIFFITHS: I think
8 that concludes the answer to Dr. Doelle's question,
9 so that's fine.

10 I'll now ask the Proponent if they
11 have any question for you, Dr. Rosenberg.

12 --- QUESTIONS BY THE PROPONENT:

13 MR. G. BENNETT: Thanks, Dr.
14 Rosenberg. I'm Gilbert Bennett; I'm Vice-President
15 of the project with Nalcor.

16 And I think the only thing --
17 because I think you pointed out that if there were
18 some general issues that you've -- you've quoted
19 both in your paper and I guess haven't been looked
20 at in detail in the EIS and I think that's as far
21 as we need to go on that point.

22 But just in respect of GHGs, that
23 is an area where we have looked at effects from
24 other projects that are in our region and certainly
25 there has been work done by Hydro Quebec looking at

1 GHG evolution from their reservoirs and what that
2 situation looks like.

3 So that certainly is an area of
4 interest for us but I just wanted to point out that
5 we have taken learnings from other projects and --
6 both in their areas, as well as baseline conditions
7 in the areas around our proposed reservoirs.

8 DR. ROSENBERG: Okay.

9 Can I make a comment also on
10 mercury?

11 CHAIRPERSON GRIFFITHS: Yes, go
12 ahead.

13 DR. ROSENBERG: The same suite of
14 methylating bacteria that produced greenhouse gases
15 apparently are responsible for mercury uptake and
16 there has been a fair amount of mercury work that
17 has come out after the Southern Indian Lake study
18 in a variety of places.

19 I, again, did not peruse the EIS
20 in great detail in terms of mercury because that's
21 not my area but if the same background information
22 on mercury and mercury modeling was picked up by
23 Nalcor then that's good. Make all kind of
24 generalizations -- generalizations really work in
25 many, many habitats, more so than say a peculiar

1 habitat that was flooded, like Southern Indian
2 Lake.

3 MR. G. BENNETT: Okay, that's
4 great. Thanks for that.

5 Just one other real quick point.
6 Lot of people have referenced, you know, your
7 comments on hydrograph and sort of what the flow
8 looks like, this project, I guess, compared to the
9 existing conditions on the river. And that's one
10 area too where we've tried -- we've modeled before
11 and after conditions and we're not seeing dramatic
12 changes in flows from what we see on the river
13 today.

14 And I guess one of the topics that
15 has been discussed, I guess, at fairly good detail
16 here is sort of the effect of the Churchill Falls
17 project 40 years ago where you did see a project
18 that had big storage.

19 And just wonder if you can comment
20 on the how site-specific, you know, those
21 hydrographic issues are.

22 DR. ROSENBERG: Well, wherever
23 I've actually looked, as long as you're changing
24 normal flow patterns on a seasonal basis you're
25 going to cause ecological effects downstream.

1 And I've seen a number of
2 different north temperate studies that show the
3 flattening of the spring freshet and the enlarging
4 of the winter flows, whether it's Williston Dam on
5 the Peace River and the result and flows into the
6 Peace Athabasca Delta or it's any of the
7 development of the Churchill River in northern
8 Manitoba the same things happens.

9 MR. G. BENNETT: I would agree
10 with those ---

11 DR. ROSENBERG: In Asian
12 countries, because apparently their hydrograph is
13 dependent on the monsoon which comes in the fall.

14 So it depends on the area that
15 you're talking about. The normal hydrograph will
16 get altered because you're taking natural river
17 flows away from the system and you're introducing
18 an artificial river flow.

19 MR. G. BENNETT: Right. I think
20 the key for us though is that we don't have any
21 storage in these facilities to do that.

22 DR. ROSENBERG: I'm saying that if
23 there's a fairly large rearrangement of flow
24 volumes from one season to another you're going to
25 have the same downstream problems.

1 CHAIRPERSON GRIFFITHS: I think
2 there might be a little bit of a delay problem Dr.
3 Rosenberg. Sometimes it seemed like you didn't
4 hear Mr. Bennett's response.

5 But anyway, never mind we'll ---

6 DR. ROSENBERG: I found it very
7 hard to hear him, he was probably not close enough
8 to the phone.

9 CHAIRPERSON GRIFFITHS: Well he's
10 quite close but he's a soft spoken person, we all -
11 - anyway, okay, thank you.

12 I've got one more, Meinhard Doelle
13 would like to -- no, he's changed his mind, he's
14 not going to ask you a follow-up question.

15 So I'm just going to ask if
16 there's anybody in the room who has a question for
17 Dr. Rosenberg.

18 I see Ms. Benefiel. Did I see --
19 I see Mr. Marcocchio, anybody else? Just the two?

20 Yes, Ms. Benefiel?

21 --- QUESTIONS BY THE PUBLIC:

22 MS. BENEFIEL: Dr. Rosenberg, Mr.
23 Bennett was explaining the idea that this new
24 project, proposed project will not have a lot of
25 storage and so therefore the flows won't be changed

1 all that much.

2 However, we've said continuously
3 that the flows were changed quite considerably with
4 the Upper Churchill project and that's one of the
5 reasons why we think the cumulative effects need to
6 be addressed more.

7 But besides that, there's another
8 question about the downstream effects of
9 methylmercury. And one of your articles -- and I
10 don't remember if it was '97 article or the '95
11 article you discussed downstream effects of
12 methylmercury going as far as, I believe, it was
13 300 kilometres; is that right?

14 DR. ROSENBERG: It's quite far
15 downstream. As I recall it was the 1997 paper, we
16 weren't sure exactly why that was happening and
17 I'm, again, not a mercury specialist, so I can't
18 tell you what the latest is on mercury transport
19 downstream but I think it does occur and it can be
20 fairly long.

21 MS. BENEFIEL: Okay. And then
22 there's one other area; we discussed on the phone a
23 young scientist from, I believe, the University of
24 Alberta who is doing some new work on greenhouse
25 gas emissions for -- or was it methylmercury --

1 greenhouse gas I believe.

2 One of the co-authors with you who
3 teaches at the University of Alberta, was it, were
4 you able to contact him?

5 DR. ROSENBERG: Hello?

6 MS. BENEFIEL: Hello? Are you
7 there Dr. Rosenberg?

8 DR. ROSENBERG: Yeah, I am. I
9 don't know what's happening to the phone.

10 I think you're -- Roberta is
11 right, in my previous comments the operation of the
12 Smallwood Reservoir, I think, has to be factored
13 into altered flow patterns because I think it's --
14 as I said before, a total river development that
15 causes these downstream effects.

16 And it would be very nice to know
17 what alternations in flow patterns that huge
18 reservoir has had on the downstream river.

19 MS. BENEFIEL: Thank you.

20 The other idea -- the other thing
21 that I just mentioned was you and I discussed on
22 the phone the possibility of this young student
23 scientist who was doing more work on greenhouse gas
24 emissions at, I believe, the University of Alberta.
25 Were you able to find out something about that

1 person?

2 DR. ROSENBERG: Actually, his
3 mentor answered me today and I actually sent you a
4 message on Yahoo.

5 MS. BENEFIEL: Great.

6 DR. ROSENBERG: Your Yahoo account
7 saying that he wants to -- he's willing to get
8 involved and talk about greenhouse gases.

9 MS. BENEFIEL: Excellent. I'll be
10 sure and check email when I get home.

11 Thank you very much.

12 DR. ROSENBERG: Okay. Because
13 he's a microbiologist you may want to tap his
14 knowledge on mercury as well.

15 CHAIRPERSON GRIFFITHS: Okay,
16 thank you, Dr. Rosenberg.

17 I have one more question for you
18 and then that will conclude the questioning period.

19 So Mr. Marcocchio, just fairly
20 quickly, please.

21 MR. MARCOCCHIO: Thank you, Dr.
22 Rosenberg.

23 Just one comment and an
24 elucidation on the apparent differences that we've
25 seen here about the difference in the hydrograph.

1 We had an independent scientist
2 yesterday point out that although the Upper
3 Churchill has resulted somewhat in the regulation
4 of the river because of all of the input from the
5 tributaries the current hydrograph was compared to
6 the original hydrograph and it still maintains many
7 of the characteristics of the original seasonal
8 hydrographic changes.

9 The Proponent seems to be
10 unwilling to acknowledge that with these dams that
11 of course will change completely.

12 So I think you've already
13 mentioned it, it's the complete regulation that
14 causes the most profound effect and I'd like you to
15 comment and acknowledge that you think that this is
16 indeed a complete alteration of the hydrological --
17 control of the river system.

18 DR. ROSENBERG: Well it's -- I
19 think it's significant but I don't know if I have
20 the expertise to talk about the nuances of
21 development on the normal hydrograph. I would have
22 to really read the entire hydrology part of the
23 EIS, and I haven't done that.

24 MR. MARCOCCHIO: All right. Thank
25 you very ---

1 DR. ROSENBERG: It strikes me that
2 with the size of the Smallwood Reservoir and the
3 amount of diversion that went on to create that
4 reservoir that you already have an altered
5 situation, but I stand to be corrected.

6 I just haven't got enough
7 background knowledge to comment on that.

8 It's a caution that I'd like to
9 offer that most of these kinds of extensive river
10 developments do cause an alteration in the
11 hydrograph, and it's a caution that that's what
12 causes downstream offshore effects to be -- to
13 result.

14 MR. MARCOCCHIO: Okay, one last
15 question.

16 The Proponent -- despite much
17 evidence of personal histories and involvement with
18 the Lake Melville system documenting the changes
19 that have occurred since the Upper Churchill, the
20 Proponent has -- firmly clings to the notion that
21 the effects of this project will not extend beyond
22 the mouth of the river.

23 Can you comment on the potential
24 changes to the Lake Melville/Groswater Bay complex
25 beyond the mouth of the river, especially how the

1 altered hydrograph and loss of sediment transport
2 will affect that system?

3 DR. ROSENBERG: Well, again, I
4 lack sufficient detailed knowledge of Lake Melville
5 system, but I would be surprised if a massive
6 development that's going on the river has no
7 effect.

8 It may be more -- the objective
9 should be to go in and find if there is no effect
10 rather than dismissing it out of hand. Perhaps, as
11 I recommended, a research program should be
12 established if this project is approved to go ahead
13 and actually test that hypothesis, if you will.
14 And that's the way environmental impact assessment
15 gets better.

16 We have a claim of no effect. If
17 the project is approved, I think we should test
18 that claim.

19 CHAIRPERSON GRIFFITHS: Okay.
20 Thank you, Mr. Marcocchio. And thank you very
21 much, Dr. Rosenberg, for joining us at this session
22 by telephone. We really appreciate it.

23 Thank you for your presentation
24 and for answering questions.

25 DR. ROSENBERG: Thank you very

1 much.

2 CHAIRPERSON GRIFFITHS: Thank you.

3 Goodbye.

4 So our next presenter is -- well,
5 I'll let Ms. Benefiel -- oh, Ms. Rudkowski, is --
6 our questions had actually ---

7 MS. BLAKE-RUDKOWSKI: No, I don't
8 have a question. I was going to introduce the
9 video that you're going to see.

10 CHAIRPERSON GRIFFITHS: Oh, come
11 forward, please. Why don't you do it from the
12 front? No?

13 Actually, while you're coming
14 forward, I just want to make a very quick comment,
15 which is I just want to commend Grand Riverkeepers
16 for all the various people and different voices
17 you've brought in to the hearing process.

18 I think the panel really
19 appreciates that diversity of people. You've
20 worked very hard, I imagine with not extensive
21 resources, so I just wanted to make a note of that.

22 So I'm sorry, Ms. Rudkowski.

23 Carry on.

24 MS. BLAKE-RUDKOWSKI: Thank you.

25 We do appreciate that you've noted

1 that.

2 Dr. Beck won't be here today. She
3 was fully expecting to be in Africa. It didn't
4 happen, but in the meantime, she's under the gun
5 with another project so she won't be available for
6 questioning, either, afterwards.

7 So I'll just tell you who she is
8 and then you'll have a look at a presentation that
9 she prepared for us.

10 Dr. Brenda Beck is an adjunct
11 professor of the University of Toronto in the
12 Department of ---

13 CHAIRPERSON GRIFFITHS: I'm sorry,
14 Ms. Rudkowski. I have to just interrupt you for a
15 moment.

16 I think we're just going to have
17 to have a little check here because basically
18 people -- so Dr. Beck is going to be making a
19 presentation by video ---

20 MS. BLAKE-RUDKOWSKI: Right.

21 CHAIRPERSON GRIFFITHS: --- but
22 will not be available to answer questions.

23 MS. BLAKE-RUDKOWSKI: Right.

24 CHAIRPERSON GRIFFITHS: And this
25 is not entirely in line with our procedures, so I

1 think what I'm going to do is -- just a moment.

2 We'll just have a brief
3 conversation, so two, three minutes.

4 I'm sorry, Ms. Benefiel. Do you
5 have something to say that's relevant to -- you do?
6 Yes, carry on.

7 MS. BENEFIEL: We've offered to
8 answer some of the questions ourselves from Dr.
9 Beck's presentation. It's not an extensive
10 scientific presentation.

11 CHAIRPERSON GRIFFITHS: All right.
12 Well, let me just check and we'll come back to you.

13 (BRIEF PAUSE)

14 CHAIRPERSON GRIFFITHS: I would --
15 just on this matter, I would like to perhaps ask
16 the -- or two things. I'd like to ask the
17 Proponent if -- well, no. Let me ask the Grand
18 Riverkeepers first.

19 Would you be prepared to -- if
20 there are questions that you can't answer, and
21 maybe you can answer them all to the satisfaction
22 of everyone, would you be prepared to accept
23 undertakings to get the answers from Dr. Beck that
24 are required? Would you be able to do that?

25 MS. BLAKE-RUDKOWSKI: No problem.

1 CHAIRPERSON GRIFFITHS: Okay. So
2 now I'm just going to turn to the Proponent.

3 Do you have any problems with this
4 procedure?

5 MR. G. BENNETT: No, there's no
6 problem from our perspective. If this were
7 submitted to the record, it would be there, so
8 yeah. I mean, there's no problem with that.

9 If we have questions, we'll figure
10 out how to deal with that later.

11 CHAIRPERSON GRIFFITHS: All right.
12 Well, thank you very much.

13 I'm sorry for the interruption.
14 Carry on.

15 MS. BLAKE-RUDKOWSKI: Okay. So as
16 I was saying, because of another project, she
17 wasn't able to be available for questions today, so
18 we hope that Roberta and I and maybe Eldred can
19 hold up her end.

20 Dr. Brenda Beck is an adjunct
21 professor at the University of Toronto in the
22 Department of Anthropology. She is President and
23 owner of a production company called Soft Science,
24 who were instrumental in providing funding and
25 producing that lovely video that we showed you at

1 the beginning of the hearings.

2 And she, along with her husband,
3 are responsible for all the photography in there
4 and he, by the way, had 33 years experience working
5 with Dr. Suzuki and "The Nature of Things", so I
6 think we had good hired help there.

7 She is also President of a
8 federally licensed charitable education foundation.
9 She's authored five books and some 60 or so
10 articles.

11 So with that, you can turn on her
12 video.

13 --- VIDEO PRESENTATION FROM GRAND RIVERKEEPER
14 LABRADOR BY DR. BRENDA BECK:

15 DR. BECK: Hello. I am Dr.
16 Professor Brenda Beck from the Department of
17 Anthropology at the University of Toronto, and I
18 also run a video production company that
19 specializes in wilderness rivers.

20 So I have paddled and canoed many,
21 many rivers in northern Canada, including the
22 Churchill River. And in my view, the Churchill
23 River, which I like to call The Grand because it is
24 a very grand river, is the most beautiful river
25 that I have ever paddled.

1 It is an amazing corridor of
2 wilderness with great, great beauty, and I'm going
3 to show you that with some pictures.

4 This is the place where one can
5 set off just below the Churchill Falls. And you
6 can see the sense of adventure. You're starting
7 off into an unknown.

8 Many parts of the river are quiet
9 and peaceful, but there are also a few exciting
10 bits, enough to make it fun and challenging for
11 anyone.

12 The river is lined on both sides
13 for most of its distance by these lovely wooded
14 hills. It's all boreal forest, full of very
15 beautiful trees, flowers and plants.

16 Unfortunately, when the river is
17 dammed, if it is dammed, the water level will rise
18 almost to the top of these hills. All these trees
19 will be submerged and, of course, there will be
20 many, many environmental consequences.

21 The river will never have this
22 beauty again. It will never be fun to paddle again
23 because it will not have current. It will become a
24 lake, studded with the tips of trees and all kinds
25 of decaying matter, and the fish ecology will also

1 change because fish behave very differently in
2 static water.

3 Another beautiful vista of the
4 river. It is just one beautiful scenic after
5 another. It takes about 10 days to paddle the
6 river down to Muskrat Falls.

7 Every inch of it is lovely. Many
8 places along the way, there are little rivulets or
9 streams coming in to the river. Of course, they're
10 favourite spots for fishermen and favourite spots
11 for fish to lay their eggs as well as to feed.

12 There are not only inlet points at
13 the edge of the river itself, but up above one sees
14 many beautiful falls. Those falls will also
15 disappear with the flooding of this huge river
16 basin.

17 Many signs of animals. It's a
18 rich wildlife corridor.

19 It's been inhabited, we believe,
20 for some 5,000 years by the native Innu, by the
21 Métis and then later by trappers and by surveyors.

22 It's rich with history and here
23 you of course see the tracks of a bear along the
24 riverbank, no doubt fishing, and if we flood the
25 river it will also affect the bear's diet.

1 This is the forest floor of the
2 boreal forest just rich thick with green, with
3 mushrooms, with flowers, all that will go if the
4 river is flooded. Beautiful plants, all kinds of
5 species, berries, mushrooms -- I love mushrooms,
6 even some very special species like the amanita
7 muscaria, and rocks, beautiful mossy rocks.

8 Now, many people say "Ah, you've
9 seen one rock you've seen them all" but it's not
10 true. Every rock is a beauty into itself, and some
11 of them along the riverbank reflect the water,
12 parts of the day when the sun is low, making for
13 beautiful, beautiful sort of vistas of rock
14 reflections.

15 There are also beaches, amazing
16 beaches. Now, most people think of Labrador as a
17 land of cold and snow. It's full of lovely beaches
18 along this river. All those beaches will be
19 submerged. They're wonderful for camping, for
20 walking. They're one of the great beauties of this
21 corridor.

22 It's also a historic corridor.
23 You can find these remains of old log cabins and
24 many people who come down the river aren't familiar
25 with the word "tilt" which is the traditional word

1 used in this area for these cabins and small huts
2 where explorers and trappers stayed. So there's
3 lots of history to be learned and experienced by
4 going down this river.

5 And there have been a little bit
6 of archaeological exploration. A few pits have
7 been dug. So there is a fair bit known about the
8 history.

9 It's very romantic, very, very
10 interesting. All this will go. All this will be
11 never seen again if we flood the river.

12 I want to just for a moment or two
13 talk about the traveler. I think the way to see
14 the river is by boat, though I think it could be
15 developed with some trails and simple roads so that
16 it can be accessed more easily at some points along
17 the river.

18 This is where one sets off just
19 below the falls. This is the kind of feeling you
20 have as you paddle down the river leading into a
21 section with some riffles and very light rapids
22 here. Of course the campfire and camping
23 experience.

24 And then I want to talk about what
25 it feels like to go along this river. You feel

1 like an explorer and you can kind of live the life
2 and imagine the life of the people who've been
3 there before you.

4 And you can be youthful or you can
5 be very senior. There's much to learn and you can
6 come back year after year and experience things
7 differently every time.

8 Some people just like to relax and
9 dream as they go down the river, and why not, it's
10 a lovely place for a vacation.

11 It's also a wonderful place for
12 fishing, very good fish, although even now they say
13 don't eat too many because of the mercury that
14 comes down from the effects of the Churchill dam.

15 If we have another dam at Muskrat
16 Falls the mercury levels are going to go up again
17 and the fish may become even more dangerous to eat.
18 That would be a great shame and certainly very
19 unfortunate for native peoples and Métis who live
20 along the river and eat the fish.

21 And this is the sort of joy one
22 can experience as a group going down having fun and
23 getting together. This is right down near Muskrat
24 Falls at the lower part of the river.

25 I want to talk a little bit about

1 the flora and the fauna. Again, you might say "Ah,
2 you can see flowers anywhere. Why do we need to
3 preserve them on this particular river?"

4 For me, when you go down a river
5 it's an experience and it's a multi-faceted
6 experience, it involves feeling, touching,
7 smelling, living along that river and every little
8 beautiful thing contributes to that experience.

9 And so you don't just go down a
10 river. You go down a corridor in which you
11 experience the ecology, the animals, the weather
12 and the life of an outdoor person.

13 And, to me, because this is the
14 most beautiful river in Canada and it's totally
15 unknown, it would be just a tragedy to flood this
16 river and make it inaccessible and unexperienceable
17 ever again. It is part of Canadian history but it
18 is also an unknown jewel.

19 And what I believe Labrador should
20 do is advertise this river. When you hear about
21 Newfoundland in advertisements you only see the
22 out-ports on the island, you never see the beauties
23 of Labrador, and you will not be able to see the
24 beauties of Labrador if you flood this river. This
25 is a very central part of Labrador, its heart, if

1 you like, and it would be just a tragedy to tear
2 that heart out by flooding it.

3 All kinds of beautiful flowers to
4 be enjoyed and vistas, vistas everywhere. It's an
5 amazing river for its beauty and it's the breadth
6 of its beauty. It's a wide river.

7 I put this picture in because, to
8 me, although it's a beautiful sunset it has that
9 threatening quality of what could happen to the
10 river if we dam it. It's like a death, like an
11 Armageddon where everything, all the wildlife will
12 be destroyed.

13 And this is not a sustainable
14 project, this is something -- a kind of technology,
15 a kind of thinking from the '50s and '60s. It's
16 not a modern way of looking at the resources a
17 river contributes to a province.

18 I would like to see this kind of
19 vision for the river, a beauty that is sustained
20 forever and that we invite Canadians to enjoy. I
21 think it's worth much more for our children, our
22 grandchildren, our grandchildren's grandchildren if
23 we keep it as a river and then we encourage people
24 to come and enjoy it and open up the access so that
25 it is more available to people.

1 It's within two days drive of
2 Ottawa, even a little less from Montreal. You
3 don't have to buy a train ticket. It's affordable
4 and it's a beauty that's unknown in Canada.
5 Please, let's not destroy it. Let it live.

6 Thank you.

7 CHAIRPERSON GRIFFITHS: Thank you
8 very much. I guess I thank Grand Riverkeeper for
9 bringing us that presentation since Dr. Beck is not
10 here and able to respond. So thank you very much.
11 It was a very well done DVD.

12 So I will ask if there are
13 questions from the panel to Grand Riverkeeper with
14 respect to Dr. Beck's presentation?

15 No, I don't think I have any
16 questions either.

17 You have a comment? Yes, Mr.
18 Igloliorte?

19 MEMBER IGLOLIORTE: No, just to
20 say thank you. And essentially we're asked to look
21 at uses, look at the areas which are important to
22 individuals, and I really appreciate that you've
23 done that.

24 CHAIRPERSON GRIFFITHS: Nalcor, do
25 you have any questions?

1 MR. G. BENNETT: No, I think I'm
2 fine. There are a couple of factual points in
3 there but that's already on the record. So, no,
4 we're good, thank you.

5 CHAIRPERSON GRIFFITHS: And any
6 questions from the audience?

7 Well, thank you very much indeed
8 for bringing that DVD and allowing Dr. Beck to
9 speak to us by that medium.

10 Do you want to say a few closing
11 remarks?

12 MS. BENEFIEL: I just want to say
13 I think the message is that -- and something that
14 Grand Riverkeeper has been saying all along that
15 the river has far more value leaving it as it is
16 and we should be looking at alternatives to
17 developing a hydro project there, and that's her
18 message and that's our message.

19 So thank you for listening.

20 CHAIRPERSON GRIFFITHS: Well,
21 thank you very much.

22 And I must say there were times
23 when I was watching that that I was thinking, "Oh
24 my goodness, here we all are, sitting inside this
25 hearing room with this beautiful day outside."

1 Anyway, that's the way it is.

2 So the next presentation is by Mr.
3 Todd Russell.

4 --- PRESENTATION BY THE HON. TODD RUSSELL:

5 MR. RUSSELL: Thank you and good
6 afternoon. It's a pleasure to be here and I thank
7 the panel for the opportunity to present, and I
8 would certainly like to acknowledge all of the
9 people who are present and will virtually be
10 present, I would hope, through the wonderful job
11 the panel has done in getting all of this
12 information out to a wider audience. It's pretty
13 remarkable, the breadth and the depth of
14 information that is available, at least once people
15 are in front of the panel.

16 But I'm here today above all as a
17 Labradorean and of course I'm also the Member of
18 Parliament for Labrador.

19 It is interesting times, as I'm
20 sure you are all aware. This project has been
21 talked about by many, as most recently as
22 yesterday, at the highest political levels in our
23 country. We seem to be talked about at the
24 national level, the provincial level, regional
25 levels in capitals throughout our country, and I

1 can't help but remark that we somehow seem to be
2 outside of that conversation so many times. It's
3 as if something is happening outside of us when in
4 fact we are supposed to be in that room. We are
5 supposed to be a part of that conversation in a
6 very real way, in a very sincere way.

7 And as a Labradorean, I don't feel
8 that that is the case, many, many times.

9 In trying to capture the voice and
10 the sense of the people in Labrador, in my own way,
11 through my own resources, we reached out through a
12 virtual town hall that was held on February the 23rd
13 and through the results of a survey that I held in
14 December and January of this past year.

15 The report is called "Where we
16 Stand: Labradoreans' View of the Muskrat Falls
17 Proposal". And there is a main point. As the
18 Muskrat Falls project is set out, Labradoreans see
19 themselves as taking on 100 percent of the pain for
20 little or any of the gain.

21 And there is no doubt that the
22 pain will be permanent. It is possible in this
23 context to raise doubts, to question and even
24 oppose the current proposed project specifically
25 without being anti-development or anti-hydro in

1 general.

2 At the very least, this project
3 requires substantial changes. Nalcor says that
4 they are doing this project for Labrador. It is
5 becoming clear in my mind that in fact they are
6 doing this project to Labrador, and there is an
7 important difference.

8 The project, as proposed, fails to
9 achieve any of the goals set out by the current
10 provincial government, not the political goals laid
11 out in 2002 and 2003 that Labradoreans will be the
12 primary beneficiaries of the resource with pledges
13 of low-cost energy availability, transmission
14 within Labrador to wean our communities off diesel
15 and the Legacy Fund. These things were promised in
16 political venues, but they have not been delivered
17 in the proposed agreement with Emera.

18 And not the policy goals set out
19 in the provincial government's Energy Plan,
20 including full consultation with Labradoreans, full
21 study of all the alternatives to the Lower
22 Churchill, employment guarantees and a supply of
23 hydroelectric power at low cost.

24 The employment guarantees are
25 weak, at best. In Labrador, we have had recent

1 experience in this regard with weak protection for
2 our interests in the Voisey's Bay mine development.
3 The reality did not match the promise.

4 The estimated cost per
5 kilowatt/hour of Muskrat Falls power to customers
6 in Newfoundland is also significantly higher than
7 the current rates and it is doubtful if they are
8 economical in any competitive marketplace.

9 Provincial policy, however, has
10 made the Island of Newfoundland a captive market.
11 The high cost of power also means it cannot be used
12 to induce further industrial development unless
13 that development is subsidized by taxpayers or
14 cross-subsidized by other electrical ratepayers.

15 And of course with transmission
16 outside of Labrador, there is no longer any
17 locational advantage within Labrador by virtue of
18 proximity. Newfoundland and Nova Scotia will have
19 access to Muskrat Falls energy. Labrador, I
20 contend, will not.

21 Even if the price of Muskrat Falls
22 power were attractive to industrial customers such
23 as an aluminium industry, these customers will no
24 longer have any incentive to locate in Labrador.

25 The people of Labrador believe

1 strongly, at 80 percent, that the project doesn't
2 provide enough to Labrador. Eighty-eight (88)
3 percent felt that Labradoreans would not be the
4 primary beneficiary of the project. Only 13
5 percent of the survey felt the employment benefits
6 proposed by Nalcor for Labrador residents was
7 satisfactory. Our people are also very worried at
8 79 percent about the environmental impact of the
9 project.

10 Labrador people have a deep
11 passion for our shared homeland. I know of many,
12 many families, Innu, Inuit and Métis, as well as
13 others, that suffered direct harm as a result of
14 the Upper Churchill Falls development.

15 It also had many downstream
16 effects on aboriginal and non-aboriginal harvesting
17 in the Bay. The Grand River flows deep in our
18 collective psyche. We have lost loved ones to it.
19 We have hunted, fished, trapped and gathered along
20 these shores since time immemorial. We have homes
21 and burial grounds along it and, in some cases,
22 more of these will be lost to new flooding.

23 We have lived on the river and by
24 its bounty for centuries. It is one of our most
25 precious places. It is part of who we are in

1 Labrador.

2 We also have some strong memories
3 of a callous disregard of this place, of the Grand
4 River, that is so much a part of our hearts and our
5 history.

6 I'm sure that panel members are
7 aware of the attitude expressed in St. John's 40 or
8 so years ago that not a kilowatt of power will go
9 to the coast of Labrador until there's a light bulb
10 on every staging head in Newfoundland.

11 I am sure this panel will not find
12 any reason to prop up a reply of that old colonial
13 recipe, a recipe with Labrador paying the freight
14 and not even getting a ride in steerage.

15 This is why it was so
16 disappointing to me that the provincial government,
17 knowing this history, again designed a project with
18 so little for Labrador. A project, in itself, is
19 neither good nor bad. I'm sure the engineering and
20 technical expertise brought to the design of the
21 dam is all very proper, although anyone in central
22 and southern Labrador is aware that provincially
23 designed projects like highways can be shoddy at
24 best.

25 Now our task in Labrador and your

1 task as a panel is to decide whether the project
2 gives enough gain back to make the pain worth
3 bearing.

4 Does the project contribute to the
5 development of Labrador and to the province in a
6 balanced way and in a sustainable way? This is the
7 big question for Labrador.

8 The Grand River has many names,
9 has been called many things in history, and holds
10 both Innu and Inuit places. For me and for many
11 Labradoreans, it has always been the Grand River.

12 There are those who insist that
13 hydroelectric energy is the ultimate green and
14 clean energy. If that were the case, why would we
15 even bother with a panel?

16 The damages that are caused by
17 dams are permanent ones. All the best efforts of
18 the best of us will never be able to restore it as
19 creation has produced it.

20 So the test is whether the project
21 and the decision to dam our greatest river will be
22 a positive contribution to our development or not.
23 Our survey and town hall session asked what
24 ingredients the people of Labrador see as key to
25 making positive and sustainable development out of

1 the project.

2 Ninety-five (95) percent want a
3 project on the Grand River to make electricity and
4 development available to all Labradorians. The
5 province provided no credible feasibility analysis
6 for this alternative.

7 Of all the money spent so far
8 since the 1970s, they are silent on this issue.

9 Eighty-four (84) percent want a
10 dedicated development fund for Labrador set as a
11 condition. Again, this was substituted by the
12 province with a vague and uncertain so-called
13 benefits package for some construction jobs.

14 A clear majority want the
15 aboriginal rights of the Innu, Inuit and Métis in
16 Labrador clearly dealt with in relation to the
17 project.

18 Without these basic guarantees,
19 the overwhelming majority of people in Labrador
20 don't believe we will ever see a fair share of the
21 revenue from the project or any secure or long-term
22 investment in our development. In the absence of
23 these guarantees, Labadorians strongly oppose the
24 Muskrat Falls project by a factor of four to one
25 compared to those who strongly support it.

1 In order to salvage the situation,
2 in order to succeed, this process and the
3 recommendations you make must be for Labrador.

4 There are, of course -- should be
5 some consideration of benefit for Newfoundland and
6 for Canada as a whole.

7 Under no circumstance should
8 Labrador be expected to bear 100 percent of the
9 long-term pain, as I have said earlier, and little,
10 if any, of the long-term gain.

11 Nalcor has faced a tough job.
12 After all, how can you show that building a dam on
13 our most important river in order to export 100
14 percent of the energy for use on the island or in
15 the south can possibly meet the tests of a fair,
16 balanced and a sustainable development.

17 As a result, it is not surprising
18 that Nalcor has faced protests, Court action and
19 repeated delays and sudden changes of direction.

20 Labrador's aboriginal interests
21 have been the topic of considerable deliberation by
22 the panel. The Innu Nation communities have
23 utilized portions of the project area for many,
24 many years. So, too, have Inuit and their
25 descendants, whether represented by Nunatisavut or

1 by NunatuKavut.

2 You have received some
3 documentation on this and each of their respective
4 leadership have been eloquent in stating their case
5 for full inclusion.

6 What is important is that the
7 aboriginal presence in the project area has been
8 constant, if often complex, for centuries. As a
9 result, you would have expected the Proponent to
10 have mapped out a clear process of consultation and
11 accommodation for all these interests a long time
12 ago.

13 This has not happened, according
14 to NunatuKavut, Nunatisavut and some of the Innu
15 people. As a result, it must give you great pause
16 about the approach being taken by the Proponents.

17 Is there a way forward to deal
18 with the serious opposition by the majority of
19 Labradorians? I would like to suggest three basic
20 measures.

21 One, mandatory impact benefit
22 agreements. First the panel should recommend
23 mandatory impact benefit agreements with each of
24 the aboriginal groups with either clear asserted
25 rights such as the Innu and NunatuKavut, or with

1 established rights such as the Inuit, represented
2 by Nunatsiavut government.

3 These three aboriginal peoples
4 constitute almost, if not fully, half of the
5 aboriginal or the Labrador population. And it is
6 these people who hold Constitutional rights. They
7 are at risk.

8 There are solid precedents. One
9 model for these is the BHP Billiton case in the
10 Northwest Territories over 15 years ago when the
11 Federal Minister of Indian Affairs simply told the
12 proponents that unless there were impact benefit
13 agreements negotiated with all the aboriginal
14 interests involved with asserted or established
15 rights, there would be no regulatory approvals for
16 the mines.

17 As it stands now in Labrador, this
18 model has not been followed. Of the three
19 aboriginal interests residing within Labrador, none
20 has expressed satisfaction with the Proponent's
21 plans.

22 The Innu have initialled an impact
23 benefit arrangement and insist, quite rightly, that
24 their consent is necessary to proceed. Neither the
25 NunatuKavut Community Council nor the Nunatsiavut

1 Government has been offered any such agreements.

2 Second, the panel should be
3 directing, calling for a comprehensive monitoring
4 program in relation to implementation. I fully
5 support Innu, NunatuKavut and Nunatsiavut and
6 Labradorians' requests for more adequate baseline
7 socioeconomic data jointly developed and assessed.

8 When addressing monitoring, I
9 think it is crucial as well to require joint
10 monitoring. There is no reason not to include all
11 three aboriginal interests and all Labradorians and
12 the main social development agencies in Labrador to
13 be included as full participants.

14 I've included a section here
15 called a new governance model, and I've included it
16 in a certain context that I would like to explain
17 very briefly.

18 That within the Labrador
19 population, there sometimes arise certain tensions
20 because people will say there are a group of people
21 represented by NunatuKavut, there are people
22 represented by Nunatsiavut and people represented
23 by the Innu Nation. But who represents me as a
24 Labradorian?

25 And when they ask that question, I

1 think there's a very simple sense that it is not
2 the government of Newfoundland and Labrador who say
3 that they are.

4 There are a number of people in
5 Labrador who are not a member of these three groups
6 who say, "What about us? Where are we?"

7 And so I've called this section
8 something of a new governance missile. How do we
9 give expression to those people who are not a
10 member of those three groups but who want to have
11 their voice heard and respected?

12 So I would encourage the panel to
13 develop a more far-reaching understanding about the
14 relative costs and impacts of this proposal. What
15 is needed and what has been missing in Labrador's
16 relationship with Newfoundland for too long is what
17 I would call a new governance relationship.

18 I mean simply a framework for
19 shared benefit and shared governance over our own
20 lands. To some extent, this can be achieved
21 through modern treaties like that reached by
22 Nunatsiavut. But all Labradorians must see their
23 rights fully respected.

24 The best way to respect Labrador's
25 rights in the context of the Lower Churchill will

1 be to map out an agreement based on two core
2 objectives.

3 First, that Labrador communities
4 from L'Anse au Clair to Nain and in between have a
5 right to share in the benefits of electrical power
6 and be freed from dependency and costly and dirty
7 diesel.

8 Secondly, that a comprehensive
9 benefits package be developed with Labradorians,
10 not simply imposed by St. John's.

11 For this purpose, I would
12 recommend each of the major sectors of Labrador
13 society gather together to represent a united
14 Labrador and in talks directly with the province.
15 This would include the combined Councils, each of
16 the three aboriginal organizations and the regional
17 development societies.

18 At present, most Labrador
19 communities are without any source of clean energy
20 power. With such power, our communities are
21 severely handicapped in advancing our own
22 development prospects.

23 The Proponent has refused to even
24 consider anything other than a direct current high-
25 voltage line from the dam to the island. And you

1 ask who is going to pay for that cost. Labrador
2 is.

3 The cost-benefit equations for
4 this project are highly doubtful given the lack of
5 certainty about the transmission link. The panel
6 does not have transmission on its agenda.

7 This is difficult to comprehend
8 and it is an untenable position to assert that
9 generation exists without transmission, as it is
10 its reason for being. We create generation of
11 power so that it can be transmitted.

12 However, you can surely comment at
13 length about the difficulty of assessing the
14 project's benefits and costs without knowing where
15 or how or why the power involved is to be sent.

16 I would emphasize the need for the
17 panel to propose a truly Labrador-focused package
18 of inclusion, of balance and of shared benefit. I
19 would also call for greater collaboration between
20 Labrador institutions and aboriginal groups in
21 examining and responding to joint socioeconomic
22 challenges.

23 Four decades after the Upper
24 Churchill Falls debacle, it is time, in my view, to
25 support and sustain unity within Labrador,

1 including all Labradorians, Innu, Inuit, Inuit
2 Metis and those whose ancestors have chosen to put
3 down roots here.

4 In closing, I want to congratulate
5 each of you for your dedication.

6 I know as well that each of you
7 are committed to making a lasting contribution to
8 the welfare and development of Labrador and
9 Labradoreans.

10 In the voices and words of those
11 most impacted, those who have witnessed at these
12 panel hearings, there is a cry for change, for
13 respect, those voices must be accorded the same
14 credibility as those who witness as experts.

15 And while I respect the purview of
16 the panel and ask you to reflect the need for
17 change expressed by Labradoreans it must be
18 Labradoreans who will be the final arbiters of
19 whether this project proceeds or not.

20 For this reason I know that you
21 will have the courage to speak truth to power.

22 And I thank you.

23 --- QUESTIONS BY THE PANEL:

24 CHAIRPERSON GRIFFITHS: Thank you
25 very much for your presentation to the panel, Mr.

1 Russell, we appreciate it.

2 I'm going to begin with a
3 question, if I may. It's going back a little bit
4 in your presentation and it's around employment
5 guarantees.

6 And you expressed dismay that --
7 or concern that employment guarantees may not
8 always turn out to be guarantees and you talked
9 about the Voisey's experience. I gather there was
10 some hope at first and then you were dissatisfied
11 with the results.

12 And you've seen the policy, I
13 presume you've seen what Nalcor is proposing by way
14 of adjacency and so on.

15 I'd just like to -- if you could
16 tell me why you think or what you think goes wrong?
17 What went wrong with Voisey's in terms of their
18 policies regarding adjacency and any other
19 pertinent policies that they had that sort of added
20 up to something to be called employment guarantees
21 and what do you think is needed to ensure that
22 there is a high level of Labrador participation in
23 the employment should the project proceed?

24 MR. RUSSELL: Well thank you for
25 that.

1 First of all, in a general sense,
2 I've always been of the opinion that when a project
3 proceeds somebody has to do the work, why not the
4 people who live nearest and are qualified or able
5 to do that work.

6 Every time a Proponent comes
7 before a panel or before a populous they use
8 employment as something like candy. As if we'll
9 dangle this in front of people as one of those
10 primary benefits.

11 Now in this -- there's nothing
12 wrong with jobs, we must have jobs, we all know
13 that and our people want jobs and are willing to
14 work but we also realize that these are very
15 temporary, by the very nature of this project.

16 As I understand Nalcor's
17 employment position is that it would be Innu,
18 Labradorean, Island, Canada, international, that's
19 sort of the general sense.

20 This was very similar to Voisey's
21 Bay. In Voisey's Bay it was Innu Inuit,
22 Labradorean, Island and things of that nature. And
23 when Voisey's Bay was happening I was President of
24 the Labrador Métis Nation at the time.

25 And from the time the project

1 began 'till the project ended I heard nothing but
2 complaints for the five or six years while
3 construction took place.

4 And I'll also give a little bit of
5 history on Voisey's Bay. When Voisey's Bay went
6 ahead there was \$25 million, real dollars that was
7 allocated by the federal government and it came
8 under something called JETA, the Joint Voisey's Bay
9 Employment and Training Authority, very similar to
10 what we have now called LAMP Labrador Aboriginal
11 Training Partnership.

12 And out of that we had to pay --
13 we had to pay Inco \$8 million in wage subsidies out
14 of the at 25 million just to get Aboriginal people
15 hired up there, \$8 million directly went into Inco
16 at that time to get people up on that side even
17 though they had a policy, a preferential hiring.

18 And so when I see Nalcor's --
19 Nalcor's policy is very similar to that of Inco I
20 have no confidence that they're going to do any
21 better job of ensuring that people who are going to
22 be most impacted or adjacent to the resource are
23 going to get those particular jobs.

24 For instance, there's
25 unionization, many of the contractors that come in.

1 Talk to the Constructions Trades Council, how they
2 operated in Voisey's Bay. It was very difficult
3 because Labrador, outside of some of the mining
4 towns and most of those people are employed, we
5 didn't have a highly unionized workforce.

6 Some of the trades were -- well
7 they weren't that traditional to the people of
8 Labrador either.

9 So there were many, many obstacles
10 and I have no confidence that Nalcor can do any
11 better, to be quite frank.

12 CHAIRPERSON GRIFFITHS: And do you
13 have any thoughts about in which policy around
14 employment could be structured that would in fact
15 deliver a better result or is it not -- it's not a
16 policy issue it requires something else? Sorry, I
17 got -- or is it your view that simply -- so large-
18 scale employment benefits to people in Labrador
19 cannot be delivered in any way?

20 MR. RUSSELL: There may be ways.
21 I'm not sure if Nalcor has been diligent in terms
22 of ensuring that some of those obstacles will be
23 broken down, things around unionization, about --
24 they're the Proponent, they will be hiring a lot of
25 contractors in order to do the work. What is going

1 to be the relationship between Nalcor and the
2 contractors?

3 I understand they're going to sort
4 of make it the condition of certain sub-contracts
5 that they hire people and things of that nature but
6 maybe it's a better question for the Proponent.

7 The only thing I can say is that I
8 have my doubts and I don't think they've laid those
9 to rest.

10 CHAIRPERSON GRIFFITHS: Thank you
11 very much, Mr. Russell.

12 We'll come to Nalcor, I'm sure
13 they'll have some things to say but first of all,
14 other questions from my fellow panel members?

15 MEMBER JONG: Hello, Mr. Russell.

16 Thank you very much for the -- I
17 was interested in the survey that you conducted and
18 the results, it made for interesting reading and
19 certainly gave a bit of a sense of what at least
20 some people out there are thinking.

21 I was looking at the -- your
22 Question 12 in your survey was "Do you support or
23 oppose the Muskrat Falls -- proposed Muskrat Falls
24 Agreement".

25 And I was interested that this was

1 the one question that where it really stood out,
2 sort of the differences of opinion between young
3 people in Labrador and middle aged or older people.

4 Your results indicate that 56
5 percent of young adults strongly or somewhat
6 support the project.

7 And to be honest, we haven't seen
8 a lot of those people come to the hearing. So I
9 guess I'm interested in your sense of if this
10 project doesn't go -- like I'm assuming those
11 people are looking at job opportunities and
12 assuming that they will get jobs or business
13 opportunities and that there will be something in
14 this for them and that's why they support it which
15 maybe is the wrong assumption but that's what I'm -
16 - that's the premise I'm working on.

17 And I guess my question for you
18 is, if this project doesn't go ahead do you -- what
19 do you see as the cost that that particular age
20 group that seemed to support the project certainly
21 more than other age groups do that they might pay?

22 MR. RUSSELL: What are the costs
23 that they will pay if there is no project?

24 MEMBER JONG: What is the loss
25 that -- will they suffer a loss?

1 MR. RUSSELL: Well, some would say
2 you can't lose what you haven't got.

3 Can I put it in a different way?
4 What I'm hearing -- what I'm hearing is that if we
5 don't have -- this project must go ahead because it
6 will somehow provide hope and opportunity for the
7 young people that somehow support this particular
8 development.

9 It's my firm belief that there is
10 an element in our population that somehow feel that
11 way.

12 But it's my firm belief is that
13 they will not benefit from this development the way
14 it is structured. They will not benefit from this
15 development they it is structured. Even from
16 direct employment and certainly not from what I
17 would call secondary benefit.

18 I mean if the hope -- if the hope
19 of Labrador rests in five or six years of
20 construction where we are doubtful if our people
21 will get jobs then we are in a very sorry place in
22 Labrador.

23 I do not -- I do not believe that
24 this is the be-all and end-all for the people of
25 Labrador. It is a project. But how do we make it

1 something that is beneficial to the people that
2 live here and are going to be most directly
3 impacted.

4 I would have hoped that more young
5 people would have participated in these panel
6 hearings to give a firm sense of what they are
7 feeling, and there's no doubt that once somebody
8 hears about a project they hear, oh, I may get a
9 job, so why not have it without understanding all
10 of the ramifications or all the impacts behind it.

11 But it's still a voice isn't it
12 that we have to respect, but it's my sense, Cathy
13 -- if I may call you Cathy in this particular
14 setting -- that it is so little, it is so little.
15 You know, in my view, that if -- some jobs up there
16 for some for a few years, that's not all this
17 project can be for Labrador. It is impossible for
18 all this project to be for Labrador, it has to be
19 more.

20 MEMBER JONG: Did you get a sense
21 when you were conducting the survey, and you
22 presumably heard more than just a yes or a no or I
23 support or don't from folks, of what that age group
24 was thinking or feeling?

25 Like I -- because we haven't seen

1 them and this is the one place where I do actually
2 see some information from that age group.

3 Can you tell me anything -- like,
4 I know you're saying, yes, there are short-term
5 jobs and it's not as good as it could be or it's
6 not, perhaps, what people think it is, but I'm
7 wondering what that age group is expecting from it,
8 where that support is.

9 Is it just a desperate sense that
10 those are the only jobs out there for them or do
11 you have any -- can you flesh out sort of where
12 that group's coming from at all from your own
13 sense?

14 MR. RUSSELL: Well, you're
15 certainly going into the communities time after
16 time and talking about this. I mean, there's no
17 doubt that some people out of a sense of
18 desperation I mean, particularly in some of the
19 coastal areas, will look at this as a way forward
20 for a short period of time.

21 There is no doubt that within this
22 community, some of the business community, and some
23 of the people feel that this is a way to enhance
24 their economic or socioeconomic conditions. You
25 know, that is a valid feeling by some people.

1 But if you sit down and talk with
2 these people and you sort of say to them, well,
3 here's the hiring policy as I understand it.
4 Here's what happened in Voisey's Bay, and people
5 know the Voisey's Bay experience, then you will
6 certainly see that their hopes and aspirations are
7 not as high or their expectations as high as their
8 initial reaction.

9 I mean, when somebody comes to you
10 and says, 2,000 jobs, wouldn't you sort of think,
11 my, there's an opportunity there for me. It's the
12 reason why some people buy lottery tickets isn't
13 it. And for many people in Labrador I'm sure it's
14 going to be like a lottery.

15 MEMBER JONG: Thank you.

16 CHAIRPERSON CLARKE: Thank you,
17 Mr. Russell, for your presentation.

18 My question's a general one. When
19 you were making your presentation, I had the
20 impression that you were talking about the Muskrat
21 Falls project and I understand a lot of the
22 questions in your presentation were related to
23 Muskrat Falls and your comments about the economics
24 were related to the Muskrat Falls project.

25 As you know, we are -- the

1 assessment is both for Muskrat Falls and the Gull
2 Island project, and I was wondering -- I'd be very
3 interested in any comments you might like to make
4 as to whether you gather from your survey or your
5 own feelings with respect to the Gull Island aspect
6 part of the project.

7 MR. RUSSELL: Well, I think it was
8 very surprising and maybe a bit shocking to some
9 people that the conversation had been around the
10 Gull Island project and around the Muskrat Falls
11 project, and then in a very short -- or some would
12 say it was very quick -- is a very quick turn in
13 the road, we were only talking about Muskrat Falls.

14 We were talking, you know, from
15 2,500 megawatts basically down to 824 megawatts.
16 That was very surprising to people. And some
17 people had felt, well, why is the panel moving
18 forward with hearings, a portion of the project
19 with no real determination in terms of a time when
20 we were going to have the Gull Island project.

21 And so there was a reality to
22 this, in my view, there was a reality that what's
23 in front of us is only one portion and that portion
24 is Muskrat Falls.

25 The Proponent has not given any

1 indication whatsoever at any time that they're
2 going to go move ahead with the Gull Island portion
3 of this. Like it may be a surprise to me today if
4 Mr. Bennett can tell me that they're going to move
5 ahead now with Gull Island.

6 I have seen no time -- so the Gull
7 Island piece is indeterminate. It's there
8 hypothetically and theoretically, which -- but the
9 only thing that seems to be somewhat real is
10 Muskrat Falls. That is why we concentrated on that
11 in this study.

12 To ask the questions outside of
13 that I think would have been, to some extent, not
14 being totally clear with people.

15 CHAIRPERSON CLARKE: No, I wasn't
16 questioning that at all because I understand that,
17 given some of the public media we're under with
18 them, but you're comments that -- I wasn't
19 questioning why you did the study that way, I was
20 more interested in getting your views on the
21 overall aspect of what you might have learned from
22 the people that you have been talking to with
23 respect to that aspect.

24 MR. RUSSELL: Well, I think, you
25 know, people were surprised.

1 What did I learn about the Gull
2 Island part of it? Well, the survey didn't
3 concentrate on that.

4 Now, I've talked to people, but
5 some of the same -- I would believe, the same
6 sentiments that have been expressed in the survey
7 around Muskrat Falls are the same sentiments that
8 people would have expressed around the Gull Island
9 portion of the project if, indeed, it was real.

10 That's my sense of it.

11 CHAIRPERSON CLARKE: Okay, thank
12 you.

13 MEMBER IGLOLIORTE: Thank you very
14 much, Mr. Russell.

15 I just want you to expand a little
16 bit on the sociocultural dimension that you
17 reference here with respect to the relationship
18 between all the people of Labrador, which is of
19 course part of the province with the people of
20 Newfoundland, as well, how that -- how the dynamics
21 of this proposed project is seemingly drawing those
22 two apart. But I think you also say that even
23 within Labrador the same effect is applying amongst
24 the different peoples and groups of Labrador.

25 MR. RUSSELL: Well, thank you, Mr.

1 Igloliorte.

2 You know, we have a history and
3 there is a reality about Labrador's relationship
4 with the Island of Newfoundland.

5 And projects like this, I believe,
6 help us to understand that relationship sometimes
7 in a clearer sense.

8 Some people will say that this is
9 the age-old argument of colonialism, that it is an
10 island versus Labrador mentality. Well, there may
11 be some truth in both of those.

12 And in order to find the truth,
13 maybe we only have to look at the facts and I've
14 outlined some of those facts about who designed a
15 project that exports the power, and I've often
16 found, even semantically, that export of our power,
17 the export of our power, which means the export of
18 our ability to do something for ourselves in
19 Labrador.

20 It is an amazing feeling and I --
21 to sit here in front of you today and to talk about
22 the export of something outside of Labrador and the
23 promise then of those who will say, you can have it
24 if you can use it; we will send it back to you.

25 Well, I'm only 44 but I have sat

1 and listened to the stories of people in Labrador
2 and when the fish went off our coasts, it didn't
3 come back.

4 When our trees were barged out, it
5 didn't come back. When our rocks and minerals were
6 going out in ore carts and ships, it isn't coming
7 back.

8 So can you convince me as a
9 Labradorean that when our power goes out, that it's
10 going to come back? I hear people whispering
11 "absolutely". Absolutely not, in my view.

12 And yes, sir, when these things
13 happen in Labrador, there is a heightening of the
14 tensions because the government has chosen to only
15 include some and not all.

16 Based, in my view, on arbitrary
17 criteria -- of arbitrary criteria of saying that
18 for us to move forward, me, the Proponent, to move
19 forward, I will only give the keys to that door to
20 some of the people of Labrador, not all of the
21 people in Labrador.

22 But all of the people in Labrador
23 are impacted in varying degrees, and all of the
24 people in Labrador should have a key to say whether
25 that development proceeds or not. That is a

1 reality that exists. I feel it. I go around. I
2 talk to the people in Labrador.

3 So those socioeconomic dimensions
4 exist and they do get heightened, and I believe in
5 some sense they do get clarified by these
6 developments.

7 MEMBER IGLOLIORTE: Thank you.

8 And before we get too morose, I
9 will make an offer to you that if you need a body
10 double during the elections, just give me a shout.

11 (LAUGHTER)

12 MR. RUSSELL: I was thinking very
13 much the same thing as I was approaching the panel.

14 CHAIRPERSON GRIFFITHS: Mind you,
15 you might get morose, Jim, if you actually had to
16 fulfil that promise.

17 I will now ask Nalcor if you have
18 any questions for Mr. Russell?

19 MR. G. BENNETT: Thanks, Madam Co-
20 Chair.

21 --- QUESTIONS BY THE PROPONENT:

22 MR. G. BENNETT: Mr. Russell, I'd
23 like to turn back to the whole question of
24 employment and, you know, the benefit strategy.
25 You know, I guess on the one hand I heard the

1 employment guarantees are weak, but we maybe
2 haven't communicated the whole story.

3 So I think there's a couple of
4 points. The priority that we talked about,
5 beneficiaries of ratified IBAs, residents of
6 Labrador, residents of the Island, residents of
7 Canada, and if we have to go international, we
8 will.

9 The other aspect of that that I
10 think is different than Voisey's Bay is that our
11 benefits agreement with the province also says that
12 that priority has to be honoured in collective
13 agreements.

14 So if we negotiate a collective
15 agreement with whichever bargaining agent,
16 whichever union groups we're working with, that
17 priority has to be there, and I think that's an
18 important piece of clarification that we need to
19 point out.

20 I mean, the province is serious
21 about strategy and we've been given very clear
22 direction that that strategy has to be reflected in
23 the collective agreements that would follow through
24 for the project.

25 MR. RUSSELL: Is it appropriate

1 for me if I ask a question?

2 CHAIRPERSON GRIFFITHS: Certainly,
3 Mr. Russell. You mean a question of Mr. Bennett?

4 MR. RUSSELL: Are there people
5 hired now doing work, the pre-construction work,
6 that are on wage subsidies in terms of your
7 contractors and things of that nature?

8 MR. G. BENNETT: Our contractors
9 right now are focused on engineering activities.
10 We're doing work primarily right now -- we're
11 mobilizing in St. John's, the head office and our
12 EPCM location in St. John's.

13 MR. RUSSELL: The reason why I ask
14 is -- and I think it's a relevant question -- I was
15 talking to a number of individuals. These were
16 people directly employed on some of the
17 preconstruction work, I think, some of the
18 scrubbing, some of the tree cutting and things of
19 that nature, and they had told me they were on a
20 wage subsidy.

21 And it just reminded me of
22 Voisey's Bay and I was thinking, your employer is
23 getting a wage subsidy to hire you to do this work.
24 And I was thinking that if an employer requires a
25 wage subsidy in order for you to find employment,

1 how much more difficult is it going to be for
2 others in other lines of work?

3 And I think it's an important
4 question, and I will have another look, certainly,
5 at your employment strategy.

6 But can I ask one other question?
7 When a project affects people so directly and so
8 significantly, why is there a need for employment
9 guarantees? Why is it that we have to have these
10 guarantees in order to even get what I would call
11 the most minimal of benefit, which is like
12 employment? Is it because the system is not
13 conducive to making sure that the people most
14 directly impacted shouldn't receive the benefit?

15 You know, it sounds like an
16 inverse. You would almost think that those who are
17 most directly impacted would be at the top of the
18 list in terms of getting those particular jobs, but
19 instead you have to have some type of process which
20 protects them.

21 MR. G. BENNETT: The way I see it,
22 they are at the top of the list, and that's why the
23 top of the hierarchy is workers here from Labrador.

24 Certainly, if you look to the
25 province's perspective, the province has

1 consistently established benefit strategies in
2 various locations for various projects. It's no
3 different than what happens in the offshore, for
4 example. So Hebron would have an employment
5 strategy that's focused around their work.

6 But the hierarchy seems to be
7 lined up with those who are adjacent to the
8 resource in each case where the project is.

9 MR. T. RUSSELL: Okay.

10 CHAIRPERSON GRIFFITHS: Okay.

11 Thank you. That's it?

12 MR. G. BENNETT: That was all I
13 had, yes.

14 CHAIRPERSON GRIFFITHS: Thank you.

15 We've still got one more presenter
16 and then a brief time for Nalcor to present -- to
17 respond at the end of the session, and as I
18 indicated, I would really like to be able to finish
19 our session at five o'clock.

20 So however, I'm going to provide
21 an opportunity for people in the room if anybody
22 has a question for Mr. Russell.

23 Mr. Marcocchio and then Mr. Davis.

24 If you could make it pretty well one question?

25 Thank you.

1 --- QUESTIONS BY THE PUBLIC:

2 MR. MARCOCCHIO: Thank you, Mr.
3 Russell.

4 It's been a pleasure hearing what
5 you have to say. I'm a resident of Nova Scotia.
6 I'm not a resident of Newfoundland and Labrador,
7 and I think those people who know much about my
8 history know that my praise for politicians is
9 rare.

10 However, what I heard from you
11 today impressed me in many ways. You both had a
12 grasp of the technical issues. Your comments have
13 reflected what those of us who have brought an open
14 mind to this process have heard from the residents.
15 You've encapsulated the spirit and the soul of the
16 residents of Labrador and the political issues at
17 hand here.

18 I wish you all the best in the
19 upcoming elections and I want to congratulate you
20 again for being such a strong and articulate
21 representative of the people here.

22 Thank you.

23 CHAIRPERSON GRIFFITHS: Once
24 again, Mr. Marcocchio, I did say questions. That
25 was not a question. Anyway, I'll let it go past.

1 Anyway.

2 Mr. Davis, you have a question,
3 I'm sure.

4 MR. DAVIS: Yes, you're right,
5 Madam Chair. Thank you.

6 CHAIRPERSON GRIFFITHS: Thank you.

7 MR. DAVIS: I'd like to bring you
8 back a few years to the point when the former
9 Premier of Newfoundland, Danny Williams,
10 resurrected this project again.

11 He was asked several times by the
12 media, and I can't remember the exact question, but
13 it was something to do with, well, how are you
14 going to get the people of Labrador on side or how
15 are you going to prevent them from getting out on
16 the street and demanding "no". And his question
17 was answered by a phrase something like "It depends
18 on Labrador's want." I've heard that several
19 times.

20 Please, can you tell me your
21 interpretation or give us your interpretation of
22 what that answer was and whether or not Labrador's
23 want has been fulfilled?

24 MR. RUSSELL: Well, that's a
25 highly speculative question. Labrador's wants.

1 What a huge question to ask.

2 MR. DAVIS: Do you want my
3 interpretation?

4 CHAIRPERSON GRIFFITHS: No, I
5 think we'll have the question to Mr. Russell and,
6 Mr. Russell, you have a go and then we'll need to
7 move on next presenter.

8 MR. RUSSELL: Well, for once I
9 believe in a very general sense that Labradorians
10 want the resources of Labrador to benefit the
11 people of Labrador first and foremost.

12 Labradorians want to have their
13 voice respected. Labradorians want to have a say
14 in their own future. And there is a diversity in
15 that, and I believe that this project has the
16 ability to maybe answer some of those wants.

17 That doesn't mean that it's
18 approved. That doesn't mean that it's denied, this
19 particular project. But this project may have the
20 ability to answer some of those more ephemeral, if
21 you want, but in my view very concrete wants in
22 terms of the people of Labrador.

23 Thank you.

24 CHAIRPERSON GRIFFITHS: Thank you
25 very much.

1 MR. DAVIS: Actually, I did also
2 ask, has the terms that I assume the former premier
3 asked, has it been fulfilled? Has Labrador's want
4 been addressed adequately?

5 Can the people of Labrador expect
6 to get what they want if the so-called project goes
7 ahead?

8 MR. RUSSELL: Well, I think we've
9 said some of that in -- I said some of that in the
10 presentation in terms of, you know, development of
11 funds, infrastructure developments, legacy funds,
12 those types of things.

13 No, no, some of those asks that
14 the people of Labrador have put on the table have
15 not been fulfilled.

16 CHAIRPERSON GRIFFITHS: Thank you
17 for your questions, Mr. Davis.

18 And, Mr. Russell, thank you very
19 much for coming and making this presentation to us
20 and for fielding some questions.

21 We appreciate your time.

22 MR. RUSSELL: Thank you very much,
23 Madam Chair, and I appreciate the opportunity to be
24 here. All the best to you.

25 CHAIRPERSON GRIFFITHS: So our

1 final presenter of the day is Mr. Keith Russell.

2 --- PRESENTATION BY MR. KEITH RUSSELL:

3 MR. K. RUSSELL: Thank you very
4 much for the opportunity to be here today.

5 I have to commend everybody, the
6 Proponent, the panel and all the people that are
7 taking the time to come out here. It's a very
8 long, drawn-out process and it's taken a toll on
9 everyone, I'm sure.

10 So I'll try and be brief in the
11 interests of time just to get through this here.

12 Why am I here today? I'm born and
13 raised in Goose Bay and, of course, my name is
14 Keith Russell. I'm also of Inuit ancestry, and I
15 grew up here in Labrador.

16 I'm elected into the Nunatsiavut
17 Government as ordinary member for Upper Lake
18 Melville, and we've spent quite a bit of time over
19 the last little while consulting with our
20 beneficiaries of our land claims agreement about
21 this project and what they think about it.

22 And I'm here not to more or less
23 read a prepared statement and to go over exactly
24 what I think, but what I wanted to do here today
25 was go over some of their opinions, some of my

1 opinions and personalize this right to my family
2 about basically what I think of how this whole
3 process with the panel has been going and what I
4 think of the project in general.

5 We've got issues with the
6 boundary. We've heard time and time again people
7 get up here and talk about whether or not there's
8 going to be any effects beyond the mouth of the
9 river.

10 I think we don't need to go into a
11 long, drawn-out scientific debate about that.
12 We've heard lots of science, which is quite
13 intimidating, I'll be honest to say. And there
14 were some truths spoken about how this process has
15 been and how the average citizen gets to
16 participate.

17 And I guess the intimidation
18 factor, too, of coming up to a microphone and
19 having your say and, you know, it's being taped,
20 it's being translated and you've got scientists all
21 around you.

22 So I just wanted to say that the
23 Nunatsiavut Government has put forward many
24 requests to have the boundary of the project
25 changed and, basically, to say that you have to

1 look beyond just the mouth of the river and you
2 have to look into Lake Melville and up to Grand
3 Lake and out as far as Rigolet in order to hear the
4 people and their concerns and to be able to say
5 that these are the areas that we interact with as
6 Labrador Inuit and as residents of Lake Melville.

7 We feel, in general, that the
8 traditional knowledge and the effect that this
9 project may have on our culture and our way of life
10 have been ignored up to this point.

11 It's no surprise to everybody that
12 there is a general feeling circulating that not all
13 aboriginal groups are to the table and not all
14 residents' opinions, as you heard Todd Russell just
15 say, are being taken into account as well.

16 People are -- they are saying --
17 it's very easy to say that people are saying that
18 we're just not even involved in the process. And
19 although people have said time and time again that
20 there has been a lot of consultation, they don't
21 feel that they've been reached out to and that
22 their opinions are being taken into consideration
23 about which way this should go.

24 I love this little slide from Mr.
25 Tom Sheldon's presentation. This was put up in, I

1 guess, the Nunatsiavut Government's time slot and
2 it's probably been -- you've probably seen it a few
3 times. And it really brings it home to people that
4 are residents of Lake Melville here.

5 It talks about what the Proponent
6 thinks the footprint will be and what everybody
7 else in terms of the Nunatsiavut Government and the
8 residents of Upper Lake Melville think it probably
9 should be.

10 The Proponent is saying, okay,
11 we're almost out as far as Kenamu there. We're out
12 across Mud Lake, of course, and that's the area of
13 concern.

14 I certainly like to think that
15 this project -- you know, and as a result of this
16 panel that, in the very least, we have to consider
17 extending out the assessment of this project and
18 its effects into all the surrounding areas, all
19 lakes, all streams, all tributaries.

20 And I know you can't have
21 everything perfect the way that everybody wants it.
22 But we certainly have to acknowledge the fact that
23 if you're born and raised and you grew up here or
24 you came here to Labrador and you moved in to Upper
25 Lake Melville and you did some travelling on the

1 land and you did some fishing and you did some
2 hunting and you visited other communities, the
3 mouth of the river is somewhere you pass to get to
4 somewhere else, to get something done, to be
5 somewhere, to see something and to go and interact
6 with the land, which defines who we are as
7 Labradorians as well.

8 The Nunatsiavut Government again
9 says that it should extend way out beyond Rigolet,
10 and we should -- and if that is the case, then it
11 certainly affects the Nunatsiavut Government and
12 our jurisdiction and our land claims because as it
13 stands -- and if, I guess, the predicted downstream
14 effects as noted in the initial red area there by
15 the Proponent, the Nunatsiavut Government doesn't
16 have jurisdiction. That's fine.

17 But if it extends out to Rigolet
18 and it directly affects the over 2,000
19 beneficiaries that live here in Upper Lake
20 Melville, then we need to be at that table and we
21 need to be recognized and our voices need to be
22 heard.

23 As was mentioned by many people,
24 myself included, lots of times and even again our
25 MP, Todd Russell, here today, as it stands here

1 today the only IBA that would be coming would be
2 for the Innu. Everyone else, we just wouldn't be
3 involved.

4 And, therefore, you have no real
5 grounds to come back at the Proponent, at the
6 government and say, "What about us?"

7 The downstream effects. I love
8 this little graph put together by Mr. Sheldon, too,
9 which kind of just basically says that the -- you
10 know, when we're talking about methylmercury -- I'm
11 no scientist, and I don't claim to be.

12 But you even heard Dr. Rosenberg
13 talking about how things accumulate up the food
14 chain and he talked about higher trophic levels and
15 all of those fancy technical terms. But the bottom
16 line is this.

17 Nobody can sit here and basically
18 say that there won't be impacts beyond the mouth of
19 the river. That is just ridiculous in and of
20 itself.

21 And, as a matter of fact, I live
22 right here, and the people I represent live right
23 here. We're right downstream. We are the
24 definition of downstream.

25 I, myself, live three streets over

1 from the river. I have many friends who live right
2 on the river. I have friends and family in Mud
3 Lake who are going to be deeply affected by this
4 project.

5 There's -- you know, they have to
6 be heard. And just because they're not a member of
7 a certain aboriginal group doesn't mean that their
8 voices need to ring loud and clear in the decision-
9 making process and hopefully all those voices get
10 to ring loud and clear enough for this panel to
11 come back with some meaningful recommendations that
12 are really going to do something.

13 I mean, we have to consider those
14 what-if scenarios. What if the seals are deeply,
15 deeply, irreparably affected by this project? I,
16 myself, I love seal. Grew up on it. Seal liver,
17 seal kidneys are two of my favourite delicacies.

18 A special time that I have with my
19 grandparents, who are of Inuit ancestry, were
20 surrounded just seal, just that. Our boots, our
21 mittens, our coats were made of seal.

22 We have to consider how our lives
23 change, how our culture and heritage is going to
24 change, and our food chain, how that's going to
25 change. Things we're used to.

1 I certainly want my kids to enjoy
2 the things that I have and I certainly hope that
3 their children are going to be here and be able to
4 enjoy the same things too.

5 I'm going to give you a little
6 picture. This is how I personalize this to the
7 Proponent and to the panel. In the upper left-hand
8 corner I've got my mother showing a couple of other
9 people how to prepare partridges. So that's
10 something that's just not being talked about at
11 this particular point in time.

12 If you go over clockwise now
13 you're looking at a nice seal which is something
14 that's very near and dear to me and near and dear
15 to the people that I represent who are
16 beneficiaries of the Labrador Inuit Land Claims
17 Agreement.

18 Right to the right of that that's
19 my little fellow. That's little Keith. When he's
20 not hunting birds or fishing out at the -- you
21 know, on rod or out ice fishing, as we do a lot,
22 he's the kind of little guy that likes to be in the
23 streams in the brooks and the things that dump into
24 an estuary such as ours. He likes the salamanders,
25 the frogs. He likes to grow stuff that his sister

1 won't even touch.

2 And speaking of her, she's right
3 down there next to the skidoo down there at the
4 mouth of Kenamish. If you could see -- I wish that
5 picture was a little bigger, you could see how big
6 that smile is when she's holding up that huge trout
7 she caught. It's something she dearly enjoys.

8 We need to know that this is going
9 to be safe for her and safe for her children, and
10 we need to know that everybody who engages in this
11 certainly very common activity in this region
12 downstream, we need to know that we're going to
13 have every assurance that things are going to be
14 safe and that there is no real risk and if there
15 are risks they have to be clearly defined and put
16 out for all to see.

17 Continuing on clockwise there
18 that's my grandfather. He's passed on. But that's
19 where I get my Inuit blood from. He showed me so
20 much about hunting and fishing. We spent time on
21 this river. We spent time in our bay. We spent
22 time up the north coast of Labrador.

23 There's a way of doing things and
24 that way has to be respected. And when the
25 Labrador Inuit present here in Upper Lake Melville

1 and their traditional knowledge and their heritage
2 and their lineage is not taken into consideration
3 when we talk about a mega project in our backyard
4 then we've got to have a problem with that.

5 Right above old gramps there
6 that's a good pic of some of the caribou that we're
7 after every year. And I know that's been a
8 political, I guess, hotspot or a hot item of late.
9 But we need the assurances that the migratory pass
10 won't be changed and that these animals who are in
11 jeopardy are not going to be jeopardized any
12 further.

13 Continuing on I've got my father
14 and my uncle cleaning fish right on the beach down
15 by our cabin, which really, if you think of the
16 maps and all that, it's only a little ways past
17 Kenamish.

18 And so, I mean, we need to know
19 that all of those homesteads, all of those cabins
20 where people frequent year in, year out, we need to
21 know that everybody who's on the south side of our
22 bay and the north side of our bay, so the residents
23 of Sheshatshiu and the residents of Northwest River
24 and the people from Mud Lake and Goose Bay, we need
25 to know that our lives are not going to be changed,

1 and if there is changes coming we have to have a
2 very open and honest process where we can learn how
3 things are going to be different.

4 And if you look at the long and
5 short of it all, I mean, people have to be involved
6 if they're going to be affected, if it's positive
7 or negative, they should be fully aware of all the
8 consequences and fully aware of how things are
9 going to change, whether it's just the way you do
10 things, whether it's your recreation or whether it
11 is your economics in terms of your employment and
12 such.

13 I'm not going to harp on this
14 because this has been said many, many times.
15 Again, the people of Labrador we should be the
16 primary beneficiaries of those benefits that come
17 from this project. I fully believe that.

18 And I also -- I have to say this,
19 I mean, we have the Nunatsiavut Inuit who are -- we
20 have a land claim, yes, that's true, and that
21 doesn't encompass the project area directly, I
22 mean, where these dams are going to be.

23 Nunatukavut, they have a claim on
24 their way. They have to be at the table. The
25 Labrador Métis Nation has worked long and hard to

1 represent those people that are members of their
2 association and then now moving into trying to
3 formalize their claim. They have to be recognized
4 and at that table as well. They have to be part of
5 this.

6 With no disrespect to the Innu,
7 with none intended, I have some really good friends
8 who are Innu as well, I have to say this, there are
9 more than just Innu here. There are a lot of other
10 people. There are settlers. There are long-term
11 residents. These people and their voices need to
12 be heard. They have to be considered. Their
13 opinions belong at the table when this project is
14 going to be decided on, how it goes ahead, if it
15 goes ahead or whether or not it's even worth
16 exploring alternatives.

17 Right now on the street people
18 they think that this is done, it's a done deal, and
19 they think that the only people to the table are
20 going to be the Innu Nation and that we're not
21 going to be part of that at all, even though our
22 levels of government, are reasonable government,
23 Nunatsiavut has made many requests. Nunatukavut
24 certainly wanted to be there at the table.

25 And then there's that unknown

1 group that Todd Russell made reference to, that's
2 the people that are not represented by the
3 Aboriginal groups. That's just the people that
4 just came here to live. They put their roots down
5 here, they grew their families here. Who's
6 speaking for them right now? I'll concur with Mr.
7 Russell and I'll say that I certainly don't think
8 it's our government right now. They seem to be
9 left out of the process here.

10 I'm not going to touch -- go into
11 too much detail about the employment, but I'll tell
12 you what, this has been said time and time again,
13 we've seen the promises that came from, say,
14 Voisey's Bay, those employment, I guess,
15 predictions were completely unrealistic.

16 And me personally, as a
17 representative of Labrador Inuit who are
18 beneficiaries to Nunatsiavut government and our
19 land claim, I've heard nothing but a constant, I
20 guess, rumbling about how the principles of the IBA
21 themselves aren't necessarily even being followed.
22 So that's something you have to think about.

23 So if the other Aboriginal groups,
24 such as Nunatukavut, such as Nunatsiavut
25 government, such as the average resident, if they

1 don't even have an IBA in place how are they even
2 going to be assured that they're going to get some
3 type of employment benefit out of this project.

4 Nobody can certainly tell me that
5 all of the promises that were made for Voisey's Bay
6 have been kept, because once you get into pieces of
7 work being subcontracted out and then the union
8 equation that has to be figured out to do with that
9 -- no, no, and I'm not against unions but the
10 bottom line is how do the average people who are
11 not union members and are not skilled in those
12 particular trades how do they see some benefit out
13 of this.

14 People constantly say "It's not
15 our people in there." It's not our people in
16 there. It's people from abroad, from away. It's
17 people who are being brought in by the contractors.

18 And the way it's all worked out
19 yes, the employment numbers that were promised and
20 that are guaranteed in the IBA are being met, they
21 certainly are, it's the custodial jobs, it's the
22 security jobs, it's the labour jobs, it's certainly
23 not the majority of the high paying jobs, the long-
24 term jobs and such.

25 So I just wanted the panel to know

1 that people on the street are wanting these
2 employment type of items to be really, really
3 scrutinized and really looked at. And you have to
4 go beyond the mentality that only those with an IBA
5 are going to benefit and that adjacency is going to
6 be 100 percent adhered to, because that's simply
7 not the case.

8 Now, there's always that question
9 about who's going to pay for this and whether or
10 not you're paying in terms of your hydro bill goes
11 up, or whether or not you're paying in terms of the
12 damage that's done downstream, or you're paying in
13 terms of -- you know, maybe I will look at that
14 other side of things, maybe if the project doesn't
15 go ahead and you're paying because you didn't get
16 that job.

17 But I for one, and the people that
18 I've been talking with, they don't even know what's
19 going on at this point. There's so many mixed
20 messages out there.

21 So the only thing I want to say to
22 the panel today is that when you go back after this
23 whole process and you start to get the reports and
24 the recommendations put together and the Proponent
25 starts to respond to those, that you make sure that

1 everything is put there.

2 And let's not completely go too
3 crazy with the mathematics and the science but
4 let's put it in plain language for everybody to
5 understand, so that an elder can pick up a brochure
6 and get the bottom line about what's going to
7 happen when it comes to proposed rate hikes, or
8 what it's going to mean about methylmercury, or
9 what it's going to mean about the number of job
10 hours, person hours created in terms of the
11 employment.

12 I want this panel, if I may
13 request it, to really consider some of the things
14 that we've heard about Voisey's Bay and what has
15 happened. I mean, there's been environmental
16 issues; there's been employment issues; there's
17 been complaints from all sides about really how
18 much did we get, you know, how much did the
19 adjacency principles really apply or how are they
20 enforced.

21 People in the local communities
22 they'll certainly tell you if you walk the streets,
23 you see the unemployment and you see the effects.

24 The project is going strong but
25 there's still people, many, many people in our

1 communities that don't have any employment at all.

2 I talked about the contractors and
3 unions; I won't get into that. But that's
4 certainly a way of getting around the employment
5 promises that are made at the beginning stages of
6 setting up how a project should be

7 Boom and bust; that's something
8 that's really going to affect Lake Melville, for
9 sure. We've heard different layers of the mayors
10 of different communities get up here and talk about
11 municipal concerns, social concerns, these are very
12 real.

13 There are problems in our
14 communities right now. When you start -- you know,
15 even you talk about our ability to respond to
16 emergencies such as fires, the health care system,
17 all of those things, there will be pressure put on
18 this community.

19 All of those things really have to
20 be considered and I just wanted to reiterate the
21 points that we've all heard time and time again.
22 These are not new items but saying them again
23 certainly doesn't hurt, especially when the people
24 that put you in these jobs and they represent are
25 asking you to do that.

1 I just have a few closing points.
2 You hear so much mention of this green project,
3 this sustainability. When you talk about, you
4 know, diesel generation and all that, of course
5 it's green, sure. But that's on a much grander
6 scale I think than when you talk about just the
7 local focus. It's the local focus I'm concerned
8 of.

9 Everybody wants to be green and
10 everybody tries to recycle and everybody wants to
11 do their part, yes, that's true. But the bottom
12 line here is, this is green and it's being sold as
13 green but I really don't think that it's going to
14 be that green if it's right here in our backyard,
15 we need to know just how green. And if there are
16 issues well let's put them on the table and try and
17 deal with them together.

18 Again, a comment on the various
19 Aboriginal groups and the average resident who is
20 not part of those, their opinions have to be taken
21 into consideration and they have to be part of the
22 decision-making process of whether or not this goes
23 ahead, how it goes ahead and who starts to see the
24 benefits.

25 People, they know that these

1 hearings -- you know, the dates are -- they're
2 happening, people are reluctant to come, they
3 certainly are.

4 People are hearing a lot of mixed
5 messages about how much pollution, how much
6 methylmercury and even moving on to the next point,
7 whether or not there's a real possibility that a dam
8 could break and that there could be a catastrophic
9 event.

10 I for one right now, I don't even
11 know what to think anymore. I'm bombarded by so
12 much information at this point. I certainly want
13 us to do a better job of getting that information
14 out to the public, all of us together, I would
15 certainly help in terms of the beneficiaries of our
16 land claims agreement that I represent. We need to
17 be very upfront with people about what the
18 possibilities are.

19 We've mentioned time and time
20 again that most of the talk is around Muskrat but I
21 mean if you talk about just the kilowatts proposed
22 to come out of there and I guess the footprint, the
23 flooded area, you're talking -- it's a multiplier
24 between Muskrat and to Gull.

25 People need to know that that's

1 going to probably happen down the road too and that
2 there are cumulative effects to be worried about
3 and there is a multiplier associated with doing
4 another development right after this one.

5 We need to know where we stand, we
6 need to know if there are truths involved with the
7 real potential flooding and dam breakage associated
8 with the type of -- the geographical -- I guess
9 realities that we have around Muskrat Falls, around
10 whether it's sand, rock or whatever.

11 I'm certainly not a geologist, I
12 certainly want that broken down for me so that I
13 can effectively communicate to an Elder that lives
14 in one of the communities I represent when they ask
15 me "Is there any truth to the potential dam
16 breakage, to a flood, you know, the last thing I've
17 heard is we probably got a -- a horn will go off,
18 we got 15 minutes and then the entire lower valley
19 would be gone".

20 That's the message that's on the
21 street and that should ring very loud and clear
22 here to this panel and to the Proponent too.

23 That without having the
24 information out there in a very easy to understand,
25 very blunt and truthful forthcoming form, people

1 don't know what to think, the rumours are rapid.

2 And the last point here too, this
3 really -- this whole process really has to result
4 in something that changes the way that we look at
5 this entire project and the way that it effects the
6 area and the way that it effects us because this is
7 our backyard and the way it affects Labrador in
8 general.

9 The people on the street are
10 thinking just what I have wrote there.

11 This is not meant as a disrespect
12 to the Proponent or to the panel or to these
13 proceedings at all, but a lot of people out there
14 are saying "Ah this is a done deal, this is smoke
15 and mirrors, this is just B.S. to throw people off
16 and think that our opinions are going to matter and
17 that we can actually change the way that this
18 project is going to go or whether or not it even
19 does".

20 They want to see recommendations
21 and reporting come out of these numerous hearings
22 that actually change the way that this project is
23 going to be, whether or not it goes ahead or it
24 changes the way that the public get involved and
25 have their say and have their voice heard.

1 That's something that has to come
2 out of this panel.

3 So with that, I'll -- I said I'd
4 brief, I'm probably going on and on. I'd like to
5 thank you again for the opportunity to be here
6 today.

7 And I'd like to thank you for your
8 dedication to pull off this long running event,
9 evenings -- you know, mornings, afternoons,
10 evenings, it's certainly been quite an undertaking
11 and it's been stressful I'm sure.

12 I just hope in the end it's all
13 worth it and that what needs to be changed, if
14 something needs to be changed that happens and that
15 the people have their say and their voices make a
16 difference in terms of how this is going to
17 proceed.

18 So with that I guess it's on to
19 the questions.

20 Thanks again.

21 CHAIRPERSON GRIFFITHS: Thank you
22 very much, Mr. Russell, for your presentation and
23 thank you for sharing the pictures of your family
24 with us, that was very nice to see.

25 I'm just going to see if we have

1 any questions.

2 No, I think we have no questions
3 from the panel.

4 Mr. Bennett?

5 --- QUESTIONS BY THE PROPONENT:

6 MR. G. BENNETT: Just a real quick
7 one.

8 Mr. Russell, you mentioned that
9 people are reluctant to come to this proceeding.
10 Can you give us a feel for what you're hearing
11 about -- you know -- what that perspective is?

12 MR. RUSSELL: Well, a lot of
13 people, they gave reference to -- they stopped in,
14 you know, they saw how it was going. At first
15 opportunity a lot of them bolted I guess.

16 A lot of people said that they
17 didn't want to be on video, they didn't want to
18 come up to -- we went through many public
19 consultations with our beneficiaries. They didn't
20 want to come up to this table and speak into a mic
21 and prepare something and send it on.

22 You know, they -- it was pretty
23 intimidating. The people that have the experience
24 and have the recollection of the differences that
25 happened with Lower -- or Upper Churchill, sorry,

1 and the people that have had, you know, generations
2 working on that river.

3 Whether you're trapping, whether
4 you're just fishing or whether you're just enjoying
5 it recreationally, those are not the type of people
6 -- let's be plain -- that want to get up and talk
7 about methylmercury and talk about trophic levels
8 in terms of food chains and cumulative effects of
9 contaminants.

10 But they certainly have real
11 concerns when it comes to whether or not a dam
12 could break or whether or not they're going to be
13 able to eat fish that they share with their
14 grandchildren on -- I guess at a meal time after a
15 camping trip, something like that.

16 But I think it was the formality
17 of everything and the fact that they didn't feel
18 that they were consulted prior to this event. A
19 lot of people thought that this was nothing more
20 than a formality so it was just to be -- you know,
21 to make the people, the general population feel at
22 ease.

23 MR. G. BENNETT: That's
24 interesting because like in our EA system this is
25 the highest level of environmental assessment

1 process that we can take the project through and
2 you know, you look back at open houses and sessions
3 that we've had over the years, we don't get a
4 really big turnout and it's just interesting that,
5 you know, whether it was, "Well it's not going to
6 happen, it's not going to happen, it's not going to
7 happen because we've heard this message for five
8 years" and now we get to here and it's like "Oh
9 it's a done deal".

10 I mean that transition, I find it
11 really ---

12 MR. RUSSELL: No, I can see where
13 you're coming from there, Mr. Bennett. But I'll
14 tell you one thing too, everybody here is certainly
15 a professional and I thank you for that.

16 We're in Labrador now, we have --
17 we have a way of doing things. We have many
18 different cultures, we have those Aboriginal groups
19 that we're all aware of. A committee of
20 representatives of Elders of those people go a long
21 way.

22 Officials sitting down to a meal
23 with a bunch of respected families would go a long
24 way, just even if it was just socialize and share
25 stories about our river, being on that river, being

1 on our bay, being at the cabin. I mean it's those
2 things that will go a long way.

3 And I tell you what, when you get
4 to the Elders that we represent you get entire
5 families, you truly do.

6 They still meet, they still have
7 Sunday dinner, they still go to the cabin together.

8 They share their opinions both
9 politically and socially about the way things are
10 going in our communities in Labrador and in
11 Newfoundland in general. You know, all I can
12 suggest is what works in St. John's may not work
13 here.

14 So if you want to alter your
15 strategy, you want to change the way things are
16 going to be de done in terms of the way you put
17 your information out there or the way you engage
18 the people, look to the people who represents those
19 aboriginal groups to give you a hand in doing that.

20 MR. G. BENNETT: And thanks for
21 that, because we will continue to reach out and if
22 we get through this process, we have more work to
23 do. You've raised some questions here that we've
24 discussed in a very technical basis in this
25 proceeding, and I would appreciate that if people

1 MR. LEARNING: Richard Learning.

2 It's not a question; it's a
3 comment. The only thing green about this is going
4 to be the money that Nalcor is going to get.

5 CHAIRPERSON GRIFFITHS: I am
6 asking for questions.

7 Mr. Marcocchio, do you have a
8 question, not a statement -- a question? Have you
9 got a question or is it a statement?

10 MR. MARCOCCHIO: I don't
11 appreciate the harassment from the Chair. Yes, I
12 have a question.

13 CHAIRPERSON GRIFFITHS: Mr.
14 Marcocchio, ask it then. Would you ask your
15 question, please?

16 MR. MARCOCCHIO: Thank you.

17 CHAIRPERSON GRIFFITHS: Proceed.

18 MR. MARCOCCHIO: Mr. Russell,
19 we've heard evidence from a Dr. Brooks that talked
20 about the glacial marine nature of the valley.
21 You're probably much more familiar and aware of it
22 than I am.

23 He showed us some examples of some
24 rapid -- relatively rapid slumping of the material
25 because it gets wet, turns into a liquid state and

1 suddenly slumps and he showed us several examples.
2 The Proponent had categorized these slumps, said
3 the biggest one that they found was about 22,000
4 cubic metres.

5 Dr. Brooks came and found many
6 more of these examples of a size up to not 22,000
7 metres but 2.2 million cubic metres.

8 Dr. Brooks was shocked during his
9 presentation to find out that the area that the dam
10 is planning on being anchored to has, for the last
11 20 years, had to be pumped continuously because
12 that process of the stuff becoming liquid and
13 slumping has already started there. In other
14 words, these folks are planning on putting 100-foot
15 dam into an area that's already seriously
16 threatening to fall quickly into the river.

17 Are you aware of the fact that as
18 well as the dam breach, that probably a more
19 serious and likely occurrence is a cataclysmic
20 failure by virtue of a dam bypass; that is, that
21 material that's already tending to slump, slumping
22 dramatically into the river and the river going
23 around the dam and causing the kind of destruction
24 that you described?

25 Are you aware that that is a real

1 risk?

2 MR. K. RUSSELL: Again, I'm not a
3 scientist, but I have heard many scenarios that
4 have put that, I guess, to me as a representative
5 of the people and they want to know what I think,
6 and I'll just state this. You know, I'm -- I have
7 an undergraduate degree and a certification or two
8 and a bunch of certificates in this, that and the
9 other, but I still have no idea what to believe
10 about the Lower Churchill project, and that's the
11 honest-to-God truth.

12 Am I concerned? Every day I get
13 up and I look at my kids and I want to make sure
14 that they're going to have the best day, the best
15 week, the best month, the best year, and hopefully
16 the best life. I'm not doing my duty as a father
17 or a representative of the people if I don't really
18 care about the possibility of any one of those
19 scenarios and I certainly do.

20 And that's what I'm saying. If
21 you look at, I guess, the fourth point on my last
22 slide, it's the truth about possible safety risks.
23 Every scenario, everything I -- you need to educate
24 me on geography right now, seriously. I need to be
25 educated. I don't need to hear 10 doctors talking

1 in technical terms or 10 engineers. I need the
2 Proponent. I need the people who are opposed to
3 the project. I need science on both sides. I need
4 real scenarios broken down in real language that
5 people can understand.

6 That's going to tell us what's
7 possible. And I'll tell you what; we're
8 downstream. We are -- like I said earlier in my
9 presentation, we're the definition of downstream
10 here in Lake Melville and specifically here in
11 Goose Bay, and we don't even feel like we're part
12 of this process.

13 Now, having said that, if any one
14 of those scenarios -- if the ground is so saturated
15 that it all lets go and the dam is bypassed over
16 years, if it takes five, seven years or whatever --
17 and that's been confirmed by previous engineering
18 efforts. I mean, this is not the first time that
19 this project has been looked at. If that's a
20 possibility, put it out to the people and let them
21 know. Then that will give them the ability to
22 decide whether or not they say, "Hey, let's go with
23 this project" or I'm going to be up there shutting
24 down that road to make sure nobody is going to come
25 in and develop this project.

1 That's the kind of information
2 that needs to get out to the people.

3 CHAIRPERSON GRIFFITHS: Thank you
4 for your question, Mr. Marcocchio. Thank you very
5 much.

6 I will go to Mr. Bennett. You
7 wish to say something in response to that? And
8 then I will thank Mr. Russell and release him from
9 the presenter's chair.

10 Yes, Mr. Bennett, then I need to
11 say something to Mr. Russell, and then we will come
12 back to you for a quick response to the day and
13 what you've heard over the day.

14 MR. G. BENNETT: Thank you, Madam
15 Co-Chair.

16 This conversation that we've heard
17 over the past couple of minutes I find to be a
18 little bit challenging because the scenario that
19 was presented to Mr. Russell is actually not
20 correct.

21 The situation with respect to the
22 north spur, there's a letter from NR Can on the
23 record that Dr. Brooks looked at the situation,
24 said he didn't have the appropriate engineering
25 expertise, acknowledges we were doing the steps

1 that were necessary.

2 So as we've seen here in the past
3 three minutes, we've had the sensational
4 suggestion, the public concern and an error that
5 needs to be corrected. So I guess the challenge is
6 we have to find a way to get the information out in
7 an unbiased manner that actually lets people
8 understand the facts.

9 So that's a challenge that we all
10 collectively have, and I just wanted to make that
11 observation.

12 CHAIRPERSON GRIFFITHS: Thank you.

13 I'd like to -- I think it's good
14 to make a separation between what needs to be said
15 to the panel and the communication that you need to
16 make to other people. It's not necessarily one and
17 the same, and I know you understand that.

18 Okay. Thank you.

19 Mr. Russell, what I wanted to say
20 to you before you went was à propos of your
21 comments that people find this process
22 uncomfortable and so on, fair enough; I'm sure they
23 do. We know they do. People have told us this.

24 We're sorry about the line-ups on
25 the mics and the whole business. This is what you

1 have to do with hearings. That's just the way it
2 is, and we'll have to try and adapt to it.

3 We have a community hearing
4 tomorrow which is specifically for this community.
5 So if you are talking to any of your friends and
6 neighbours, people you represent, beneficiaries,
7 and you know any of them who have something they
8 would like to say to the panel, however, they feel
9 that this set-up is not for them, would you -- I
10 would ask you to encourage them nonetheless to
11 come. We've run a bunch of community hearings with
12 the mics, the whole business, and I can assure you
13 that we do everything that we can to make people
14 feel as comfortable as possible.

15 When people screw their courage to
16 the sticking point, they come up, bring a friend
17 up. We'll speak informally to them. We'll ask
18 questions, if that's more comfortable, and we've
19 had some excellent response from people who
20 probably thought that they couldn't do it.

21 So I just want to make that point
22 to you. It is a community hearing tomorrow.
23 That's the purpose. And encourage people that once
24 they get up here, we're for friendly people and
25 it's not as bad as they might think.

1 So I just wanted to make that
2 point. So thank you very much for your
3 presentation.

4 MR. K. RUSSELL: Thank you.

5 CHAIRPERSON GRIFFITHS: Okay. So
6 the very last thing on the agenda this evening is
7 an opportunity for Nalcor to just reflect on some
8 of the things that they've heard this session.

9 --- COMMENTS BY NALCOR:

10 MR. G. BENNETT: And I'll do that
11 really quickly, recognizing the late time today.

12 So I'll start from -- just maybe
13 right at this point in time I just really want to
14 thank Mr. Russell for his comments and that
15 exchange. I thought that was very helpful and I
16 won't say much about that.

17 But going back to the beginning of
18 the day, we heard Professor Rudd's perspective. I
19 think it was an interesting point of view. I just
20 wanted to make the note that it is an academic
21 perspective that doesn't align with our current
22 environmental assessment practice of law here in
23 Canada and that may be a discussion that the
24 federal government may wish to consider at some
25 point in time.

1 I heard points about different
2 alternative energy suggestions and ideas and I
3 think those are best deferred for the general
4 session that we have set aside for those. I don't
5 think it's productive to get into that this
6 afternoon and hopefully when I go downstairs I can
7 put a signature on a letter and get that resolved
8 today.

9 Mr. Todd Russell raised some
10 questions in -- his survey, I think it's difficult
11 for us to tell whether there is a level of
12 opposition or support.

13 I think one thing that we noticed
14 from a technical perspective in that survey is that
15 most people said they didn't think they had enough
16 information to make a comment and if that's the
17 case then we would have thought that there would
18 have been more uncertainty in some of the other
19 answers.

20 So that's just a technical
21 observation on that.

22 The whole question of distribution
23 of benefits, provincial policy, not helpful for me
24 to go there, that's probably not a good thing for
25 me to do at this late stage.

1 And I think those were probably
2 the most fundamental points that I just wanted to
3 just reflect on very quickly.

4 So with that, thank you very much.

5 CHAIRPERSON GRIFFITHS: Well thank
6 you and thank you very much for your brevity.

7 So this does conclude this general
8 session and as I said, tomorrow we have a community
9 session that is running from 9 o'clock in the
10 morning until 4 o'clock in the afternoon, we're
11 ending a little bit earlier.

12 And I invite you to return and to
13 suggest it to other people to come.

14 And I want to thank everybody who
15 made a presentation today and those who
16 participated in the questions and all of you who
17 perhaps did neither of those things but sat here
18 throughout the day and listened and sort of
19 supported the hearing.

20 So thank you all very much. I
21 hope you have a good evening and get a tiny bit of
22 that sunshine that's still left.

23 Thank you.

24 --- Upon adjourning at 5:19 p.m.

25

C E R T I F I C A T I O N

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2

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