

MANITOBA CLEAN ENVIRONMENT COMMISSION

MANITOBA-MINNESOTA TRANSMISSION PROJECT

VOLUME 15

* * * * *

Transcript of Proceedings
Held at Fort Garry Hotel
Winnipeg, Manitoba
WEDNESDAY, MAY 31, 2017

* * * * *

CLEAN ENVIRONMENT COMMISSION

Serge Scrafield - Chairman
Laurie Streich - Commissioner
Reg Nepinak - Commissioner
Ian Gillies - Commissioner
Cathy Johnson - Commission Secretary
Cheyenne Halcrow - Administrative Assistant
Mike Green - Counsel

DEPARTMENT OF SUSTAINABLE DEVELOPMENT

Elise Dagdick
Tracey Braun

MANITOBA HYDRO

Doug Bedford - Counsel
Janet Mayor - Counsel
Robert Adkins - Counsel
Brenden Hunter - Counsel
Shannon Johnson
Maggie Bratland
Glen Penner
Shane Mailey
Jennifer Moroz

PARTICIPANTS

CONSUMERS ASSOCIATION OF CANADA (Manitoba chapter)

Gloria DeSorcy - Executive Director
Joelle Pastora Sala - Counsel
Max Griffin-Rill

SOUTHERN CHIEFS' ORGANIZATION

James Beddome - Counsel
Grand Chief Daniels

PEGUIS FIRST NATION

Jared Whelan
Wade Sutherland
Den Valdron - Counsel

MANITOBA METIS FEDERATION

Jason Madden - Counsel
Megan Strachan
Marci Riel

MANITOBA WILDLANDS

Gaile Whelan Enns

PARTICIPANTS

SOUTHEAST STAKEHOLDERS COALITION

Kevin Toyne - Counsel

Monique Bedard

Jim Teleglow

DAKOTA PLAINS WAHPETON OYATE

Warren Mills

John Stockwell

Craig Blacksmith

INDEX OF PROCEEDINGS

Sothern Stakeholders Coalition presentation:

Mr. Robert Berrien	3287
Questions by Mr. Toyne	3379
Questions by Mr. Hunter	3387
Questions by Mr. Valdron	3470
Questions by Mr. Toyne	3527
Questions by CEC panel	3529

INDEX OF EXHIBITS

SSC-01	SSC outline and CV	3535
SSC-02	SSC May 4th amended outline	3535
SSC-03	Mr. Berrien's report	3535
SSC-04	Appendices to Mr. Berrien's report	3536
SSC-05	Maps and tables supplied by Mr. Berrien	3536

INDEX OF UNDERTAKINGS

NO UNDERTAKINGS

1 WEDNESDAY, MAY 31, 2017

2 UPON COMMENCING AT 9:30 A.M.

3

4 THE CHAIRMAN: Good morning, everyone,
5 and welcome back to our hearings. We are
6 beginning today with the Southeast Stakeholders
7 Coalition. And Ms. Johnson, are there people to
8 swear in before we start?

9 MS. JOHNSON: Yes. Could you state
10 your name for the record, please? Or Mr. Toyne,
11 do you have anything to say before we start?

12 MR. BERRIEN: Yes, my name is Robert
13 Berrien, B-E-R-R-I-E-N.

14 (Robert Berrien sworn)

15 THE CHAIRMAN: All right, Mr. Toyne,
16 we'll turn it over to you to get things going.

17 MR. TOYNE: Thank you very much,
18 Mr. Chair. Again, for the record, it's Kevin
19 Toyne for the Southeast Stakeholders Coalition.
20 Just before we begin with Mr. Berrien's
21 presentation, on behalf of the Coalition, I just
22 wanted to extend a hearty thank you to the
23 Commission for providing the Coalition with the
24 resources to hire someone, with Mr. Berrien's
25 expertise and experience, to come here today and

1 to provide his evidence and views to you.

2 The way that we are going to proceed
3 is, I'm going to ask Mr. Berrien to start off by
4 providing a little bit of information to the panel
5 about his experience and expertise, just to put
6 his presentation into context. He'll then provide
7 you with his presentation. I will do my best not
8 to distract from that by controlling what goes up
9 on the screen, but I make no promises.

10 Mr. Berrien has asked me to let you
11 know that he is fine if members of the panel have
12 questions during his presentation, to feel free to
13 interrupt and ask them. I know that that would be
14 different than what's happened to date, but he's
15 certainly willing to answer questions as he goes
16 along. And then perhaps in deference to the way
17 in which I typically practice outside of this
18 particular hearing, I will potentially have some
19 follow-up questions of Mr. Berrien before I turn
20 him over to my friend, Mr. Hunter, and anyone else
21 that may have some questions. So with that,
22 subject to any further points from the panel, I'll
23 turn it over to Mr. Berrien and ask him to please
24 introduce himself.

25 MR. BERRIEN: Good morning,

1 Mr. Chairman, panel members. I think probably the
2 best place to start is by providing you with some
3 background. In that respect I have provided
4 through Mr. Toyne to the panel two separate
5 documents. One is a report and the other is a
6 series of documents extracted from various
7 locations that have been in the form of an
8 appendix. What I'd like to know though is, for
9 the record, do we have exhibit numbers for these
10 things that I should be referring to them?

11 MS. JOHNSON: We will by the end of
12 the day.

13 MR. BERRIEN: That's fine. I'll just
14 say in my report and we'll know what we're talking
15 about.

16 MS. JOHNSON: That's just fine.

17 MR. BERRIEN: Thank you. In the
18 appendices, tab number 1, that's the thicker of
19 the two documents that you have, it might be
20 useful just to turn to that and quickly see some
21 of the information there. I have made it a
22 practice to limit my resumé to two pages, so there
23 is some more concise ability to review that, as
24 opposed to pages and pages like I have seen in
25 others.

1 In any event, the most important
2 things for this panel is that I have graduate
3 studies in Animal Science and an undergraduate
4 degree. My graduate studies were in Saskatchewan
5 and Saskatoon. Those studies and background lead
6 me to be a professional agrologist, a licensed
7 land man, a licensed real estate agent, I have a
8 brokers licence. I have an accredited, or was an
9 accredited rural appraiser with three different
10 appraisal organizations. I have moved into
11 retired status with all of those when I turned 70.
12 I hope that doesn't bother anybody, but I haven't
13 forgotten what I have learned, I'm just not paying
14 the dues anymore. They are very expensive.

15 With respect to actual experience and
16 activities related to the reasons we're here
17 today, I have been working in the power line
18 compensation and routing field for over 35 years,
19 and what is equally important to this panel is
20 that I have done that work for both power line
21 companies, or what they call TFOs, transmission
22 facility operators, as well as landowners. So I
23 provide independent routing consulting to both of
24 those types of entities.

25 I also have a great deal of experience

1 in routing pipelines and siting well sites. I
2 have been involved in the location of highway
3 rights-of-way, and as well as a number of other
4 types of linear facilities.

5 I have had some experience in
6 Manitoba. Specifically I appeared at the very
7 first surface rights hearings that were ever held
8 in the Province of Manitoba. I have been in the
9 Court of Queen's Bench in Manitoba, and I have
10 appeared in front of this Commission back when
11 Bipole III was evaluated.

12 So I think with that I won't spend any
13 more time, unless the Commission has some specific
14 questions about that. I certainly can tell you
15 that I have been recognized as an independent
16 routing consultant by any number of panels that I
17 have appeared in front of. And if you will accept
18 that, I will carry on with my report and get into
19 the substance of my opinion.

20 Thank you, sir.

21 The report you have in front of you is
22 broken down into five different components. And
23 Mr. Chairman, what I'm going to do is actually go
24 through the report page by page, but not reading
25 of course, but to highlight various elements that

1 I think are worthy of the board's extra attention.

2 I have a number of exhibits of which
3 you have been provided copies, and I will be
4 referring to those specifically to supplement some
5 of the materials that I'm going to be talking
6 about as we get later on into the specifics of the
7 opinion.

8 On table 3, the table of contents just
9 gives you very quickly the factors that I have
10 broken this opinion into, some background
11 material. Specifically the routing criteria is
12 next. And the reason I'm providing that to you is
13 that specifically in this case, it's applicable
14 because Manitoba Hydro, as you well know by now,
15 has chosen a new and different form of routing
16 evaluation. In that respect, it seemed worthwhile
17 to me to provide you with significant background
18 on how it's done elsewhere, so that you can judge
19 the validity of, not only the results of it, but
20 the method by which the route was selected. So
21 for that reason I have provided you with
22 significant background in that material.

23 The next step I go into is the
24 evaluation and critique of that routing process
25 where they utilize this EPRI-GTC, and to save the

1 stenographer some serious time and effort, I call
2 that EG. I briefly have abbreviated the
3 abbreviation, just to try to make this a little
4 simpler.

5 I begin that process by bringing to
6 the attention of the panel the Bipole III
7 experience and what I consider to be very, very
8 valuable direction and guidance that came out of
9 that decision. And I don't think I am overstating
10 it to say a number of the recommendations were
11 based upon the report that I provided to the
12 Commission at that hearing. I actually can read
13 things that were quotes from my report. So I feel
14 reasonably good about the fact that the Commission
15 had some interest in what I had to say at that
16 time.

17 The next step in my report is the
18 evaluation and critique of the final preferred
19 route, which was initial BMY. And I have specific
20 comments about that routing itself.

21 And then the final step is to provide
22 the Commission with my view of what may be done
23 with the routing information that they have before
24 it, and whether in fact there might be some
25 alternatives that would be worthy of their

1 consideration, in the form of the recommendations
2 that they would make to the Minister. I realize
3 you don't have the actual authority to approve or
4 disapprove a route, so I am making it in the form
5 of recommendations that you may or may not adopt.
6 But I'm sensitive to your jurisdictional issues.

7 I think the first thing I'd like to do
8 now is at page 5 with regard to the background,
9 just sort of set the stage a little bit on what my
10 approach to this thing is. We're talking about
11 devising a route which really is getting from
12 point A to point B. That's the basics of it. In
13 times past, not all that long ago, engineers would
14 just take a ruler, I'm not kidding, they used to
15 take a ruler and draw a line from A to B and that
16 was the route. Fortunately, we have come a long
17 way since then. But if planning is, in fact, to
18 be part of the route process, it needs to not be
19 random. It needs to be organized. It needs to be
20 a process. The lady who was sitting here
21 yesterday used the term, and I have used it many
22 times, constraint mapping. In other words, when
23 you're going to get from A to B, it's wise if you
24 set out on your mapping the areas where you
25 shouldn't go, and then you can begin the process

1 of finding where you can go. And that's really
2 what we're talking about now is impacts. And
3 that's really the keyword in this whole
4 presentation, is how to avoid impacts. You can't
5 avoid them, but you can in many cases minimize or
6 mitigate the impacts. But certainly the goal is
7 to figure out what those impacts are going to be,
8 and then do your best to avoid having them occur
9 in the first place. If they cannot be avoided,
10 and that can happen, then you try to mitigate or
11 minimize the impacts.

12 How do we do that process? This is
13 where the judgment comes in. This is where I
14 believe my report wants to empower the Commission,
15 so that you can weigh and judge what those factors
16 are, what criteria you should use, and how you
17 should weigh them. In that respect, I'll have
18 quite a few comments on both the numbers and types
19 of criteria, whether they're valid or invalid.
20 But we need to really get down to a basket of
21 impacts and basket of criteria and how much weight
22 you should be applying to them. Because they're
23 not equal, they're certainly not equal. And
24 that's something that you'll appreciate as we go
25 through this process, is that you can't just set

1 two items and say, well, here's one, here's the
2 other, let's compare them to each other. That
3 isn't the way it should work, in my view. And I
4 think you'll find, as I go through this, that
5 that's a valid perspective.

6 So what I would like to do is then
7 turn you briefly to page 6 and indicate to you
8 that -- at least you'll appreciate most of my
9 experience is in Alberta, that's where I live and
10 work, but I will tell you that I have worked all
11 across the country, and from what I have seen in
12 my research, I have not found any place that has
13 nearly the number of judged and written decisions
14 on power line routing than Alberta does. And I
15 think probably that's because of the abundance of
16 oil and gas, and a significant number of coal
17 fired plants and all the rest of that. I think
18 it's fair to say Alberta has a lot of depth of
19 experience in routing decision-making. I'm not
20 going to say it's the only one or the perfectly
21 right one, but it is well-reasoned. The Alberta
22 board follows the practice of administrative
23 tribunals. It sets out the reasons for its
24 decision and provides details. That is, in my
25 view, what's useful by reviewing those decisions,

1 a board with abundant experience giving you
2 reasons for what it does. And I think that's a
3 useful guideline for any administrative tribunal
4 who's dealing with the same practice area.

5 So back in 1977, which is 40 years
6 ago, the Alberta board, in one of its earliest
7 decisions where it actually tackled the issue of
8 routing factors, they noted one of the particular
9 characteristics of most of the ones that they
10 dealt with at the time was called existing linear
11 disturbance, ELD. And I really would like the
12 panel to keep that in your mind, is that existing
13 linear disturbance, if possible, forms a very good
14 basis for minimizing or creating incremental
15 impacts rather than new ones where you go through
16 a green field scenario. I'm not calling it all
17 existing linear disturbances brown field, I don't
18 want you to get that impression, but where there
19 is an existing linear disturbance it has created
20 impacts. And to the extent that we can piggyback
21 onto some of those impacts, they may be greater
22 but they are not equal to brand new impacts in
23 another location. That's why the concept of
24 existing linear disturbance has taken on such
25 importance in routing.

1 So the board actually noted a number
2 of specifics. The first one in their decision was
3 the use of railway lines. Now, I have to tell you
4 that in my almost, pushing 40 years worth of doing
5 this, found two instances where actually railway
6 lines were going in the right direction and where
7 they could be useful. This is actually one of
8 them. And I find that very interesting. When we
9 get later into this, you'll see where a railway
10 has in fact created an opportunity to generate a
11 routing opportunity. That's the best thing to
12 call it.

13 Following natural severances was
14 another one. In the Bipole scenario it wasn't
15 necessarily a natural severance, but there were
16 some canals and drainage ditches that had been
17 improved on the landscape. And they presented
18 opportunities that were, I would call them
19 pre-existing severances, where they would in fact
20 present a routing opportunity.

21 So in this case, where the board was
22 going way back then, they were talking about river
23 valleys and things like that. I don't think we're
24 going to find those things particularly optimal
25 today. But where, like I say, a canal or

1 something like that that does exist, that may be a
2 routing opportunity.

3 The next one, and it's one of the
4 earliest ones I ran into in my research, existing
5 adjacent to an existing HVTL, which is high
6 voltage transmission line. And this was explored
7 and has been explored again and again and again.
8 And obviously, where you have an existing power
9 line, a large one, putting another one beside it
10 is going to create incremental rather than new
11 impacts, visual impacts particularly. Other
12 issues such as farming around towers and things
13 like that have already been met head on, okay, now
14 we have to farm around two. But one farmer has a
15 certain amount of experience doing that and he's
16 already coping with it. So, you know, is it worse
17 to put one somewhere else, where a new farmer will
18 have it, or is there rationale with proper
19 compensation to put one beside an existing one?

20 And the other element that comes out
21 of existing HVTLs is the business of risk of
22 multiple line failures in the same location. And
23 that's an area that really had some back and forth
24 on it, and I'll address that specifically when we
25 get there later on.

1 The last one that the board dealt with
2 in that scenario or that particular case is unused
3 road allowances. And I have seen a number of
4 those where the power line will be put adjacent to
5 an unused road allowance. You don't see it very
6 often. And one of the reasons for that, we'll
7 talk about it in a little bit, is that because
8 road allowances have the potential to be developed
9 as time goes by -- remember, they are publicly
10 owned rights-of-way for people, equipment, and
11 things like that -- they represent the opportunity
12 to get power lines, pipelines, telephone lines,
13 gas lines, things like that from one place to
14 another. So typically, you don't find
15 municipalities closing those unused road
16 allowances, they leave them open for future
17 development purposes. But I will tell you that if
18 you can put a proper right-of-way plan beside an
19 existing road allowance, then you have the
20 possibility of using an existing linear
21 disturbance because, unless the farmer farms right
22 over it, which does happen occasionally, he's
23 going to have an edge to a field and that's going
24 to represent a block that is already going to
25 factor into his farming patterns.

1 So typically, we don't see unused road
2 allowances actually having power lines down the
3 middle of them.

4 There is a number of other factors
5 that came out of that decision, and that was the
6 conflict with urban lands. In that scenario they
7 were dealing with utility corridors. Now, of
8 course in this one we have the southern loop
9 corridor, which in my view, and I'll talk about
10 that in a little bit, Manitoba Hydro is utilizing
11 appropriately. I'm very happy to see that. They
12 own the right-of-way, there are existing lines
13 there, and putting additional lines besides those
14 lines makes good sense and, in fact, it follows
15 well-established routing priorities.

16 The next thing I would like to take
17 you to is page 9, and they dealt with the
18 existence, or sorry, the issue of power lines
19 beside one another. And what they came up with is
20 the unequivocal recommendation that if you could,
21 in fact, use a corridor, and this is where I take
22 it just one step further than the board's quote in
23 the middle of the page, they actually find
24 de facto corridors. And I have used that term a
25 number of times in front of boards and, in fact,

1 it has been accepted that you can have proper
2 utility corridors. Like in Alberta we have what
3 they call transportation utility corridors. Here,
4 Manitoba Hydro has established a power line
5 corridor. It's not owned by the Provincial
6 Government or anything like that, like the utility
7 corridors are, but this goes beyond where you've
8 got, for example, crossing in various areas
9 multiple power lines. That is now, well, not
10 owned by a municipality, it's in fact a de facto
11 corridor. So the same issue of grouping
12 disturbances to minimize new impacts is a very
13 well established routing priority.

14 The other element that came out of
15 that, and I noted -- not the other element, one of
16 the next elements is conflict with rural
17 residences. And the board in its decisions
18 consistently, and you'll see again more of this in
19 a moment, has indicated the importance of
20 minimizing conflicts with rural residences. It
21 just makes sense that if you can avoid the
22 disturbances that this panel I know heard about in
23 abundance, when you were down at La Broquerie and
24 other places where you've got these out in the
25 country, or other presentations being made to you,

1 you know what the concerns are that these
2 landowners have about power lines. The folks at
3 Bipole would be happy to come in here and tell you
4 chapter and verse the kinds of problems that these
5 things cause. So for obvious reasons then, if
6 it's at all possible, routes should be selected
7 that minimize the impact on rural residences.

8 The board has also indicated that
9 there is a public versus private land use decision
10 to be made when public land is available. To the
11 extent that there are limitations on the use of
12 public land, as is appropriate, if you've got
13 recreational sites, things like that that may be
14 Crown land, they would be best avoided. But if
15 there are routes that have possibilities to
16 minimize impacts on private land, they should in
17 fact be very carefully explored.

18 Further down on page 10, the board has
19 some views set forth with respect to the use of
20 irrigation land. We don't have that issue here.
21 But what I would point out to you, Mr. Chairman,
22 is that this is very analogous to the issue of the
23 hog manure drag lines that are used in the
24 province. What I'm talking about here is that you
25 need unrestricted access to move the tractors back

1 and forth across the field to efficiently and
2 effectively cover the ground with the manure
3 coming from the hose. If you've got to suddenly
4 work around one of these things, it's just like if
5 you've got an electric lawnmower or weed eater and
6 you're going around, all of a sudden you forget
7 that you went around a tree and you get caught up
8 short with the power line, you know what I'm
9 talking about. That's the kind of issue in
10 practical terms that's to be avoided. Well, I
11 call that analogous to the irrigation land issues.

12 Agricultural impacts on dry land, this
13 is always an issue. And what I would just
14 indicate at this time, and I repeat myself a
15 couple of times in the report, is that Manitoba
16 Hydro will tell you they compensate for that.
17 What I will tell you is that the compensation
18 format in Manitoba, in my view, is very -- what's
19 the right word -- it's not as good as it could be
20 by any means. The reason I say that is that in
21 many provinces, particularly Alberta, annual
22 compensation is available for obstructions on an
23 easement. An easement is different, of course,
24 than a right-of-way in some respects, leading
25 respects, but the compensation scenario, at least

1 in my view, that sees annual payments is a much
2 more effective way of compensating a landowner for
3 changing characteristics in land use.

4 And I'll give you an example. When I
5 first started in this business, the furthest north
6 you would find corn/soybean rotations was like in
7 Illinois and in southern Michigan and places like
8 that. It's now routine in Manitoba. And that's
9 through a variety of issues, climate change to
10 some degree, but perhaps even more so plant
11 breeding has allowed shorter growing seasons and
12 the opportunity to make those higher value crops
13 grow in these environments. That's a change you
14 couldn't have anticipated when a farmer got paid a
15 one time payment back in 1980, or 1990 even. So
16 for that reason, I think it's important that we
17 take very careful consideration of the fact that
18 oftentimes a power line or any linear facility
19 operator will say, well, don't worry about that,
20 Mr. Chairman, we can compensate for that.

21 Compensation is the poorest form of
22 mitigation. Just keep that in mind. It's the
23 poorest form. And in many cases the money really
24 doesn't deal with the issues that can manifest
25 themselves down the road.

1 The next issue that the board
2 recognized and that you will have heard some
3 evidence on is the decrease in property values
4 occasioned by a power line next to or nearby to
5 various types of land uses.

6 I will be very straight up with the
7 board. I have, as an appraiser, investigated this
8 on any number of occasions, and I can tell you
9 that typically power lines do not devalue
10 agricultural land. Now, that's mainly in the
11 Alberta context. Remember what I just told you
12 about annual compensation? A farmer who has a
13 problem with a power line on his property gets
14 paid annually for what those problems are. In
15 Manitoba you don't have that. I have never
16 studied this in Manitoba, so I can't offer an
17 opinion on whether it might impact agricultural
18 land in Manitoba. I can tell you, though, that
19 for land with the highest and best use is not
20 agriculture. Where it's country residential, or
21 residential, or those types of uses, it has the
22 very real prospect of impacting land values. It's
23 very dependent on the individual circumstances,
24 but it can, in fact, impact land values.

25 Obviously, if you have a mountain view

1 or something like that, that's not an issue here,
2 but if you have a lovely vista or something like
3 that, that you are enjoying, and you plunk a power
4 line and it obstructs your view or impedes your
5 view, that's going to have a negative impact on
6 the desirability of the property. I think those
7 things are pretty obvious to the panel, they
8 certainly are obvious to me.

9 That issue there leads directly into,
10 I'm on page 12 now, visual impact. And the board
11 had an actual statement that I felt was a very
12 clearly enunciated principle dealing with this
13 visual impact. It's the first italics on page 12.

14 "Generally the board believes a single
15 transmission line on the prairies
16 produces a moderate visual impact near
17 the line, which diminishes rapidly as
18 the distance increases 3 to 5
19 kilometres. An advantage of pairing
20 the existing lines is the second line
21 does not result in double visual
22 impact."

23 Here's that existing HVTL again, and
24 they come right out and tell you why they believe
25 that to be the fact.

1 There is additional discussion below
2 that, I don't think I need to read it again. But
3 I will tell you that as part of the Western
4 Alberta Transmission Line review, where I was
5 working for a number of landowners and we were
6 reviewing the benefits of a single line versus a
7 paired line or dual line, I evolved a concept
8 called home sites newly exposed versus home sites
9 previously exposed. And I can tell you that the
10 panel found that to be a valid consideration that
11 they took into their decision and used it as one
12 of the factors in deciding that pairing existing
13 transmission lines was, in fact, the right way to
14 go in that situation.

15 So, again, I'm repeating myself to a
16 certain degree, and I'll try not to do that, but
17 the business of pairing existing transmission
18 lines is very well established criteria.

19 Page 13, and right through 13, 14, 15,
20 16 and 17 are extracts from decisions. And by the
21 way, I have provided you with the originals in the
22 appendix so you can see I haven't edited them.
23 They are an example of where the board has decided
24 that this listed routing criteria is valid and, in
25 fact, it's been valid for well over 30 some years.

1 And this is in the face of repeated applications
2 by a whole bunch of transmission facility
3 operators, repeated objections by landowners,
4 these continue to be the criteria that the, at
5 least the Alberta board feels are worthwhile. And
6 I think it's useful just to review the bullets.
7 For example, under page 13, residential impact
8 down at the bottom there, they give you the
9 factors that you could look at when you're
10 considering residential impacts. These factors
11 are, I'll call them generically repeatable, view,
12 farming around towers, things like that. They
13 don't go into each individual thing and try to put
14 a number to it, but they are part of the
15 consideration, the judgment call that the board
16 feels that it must make when it reviews and weighs
17 the factors. These are the factors. How they
18 weigh them vary with the location and the
19 individual lines.

20 So I won't go into each one of these
21 again, I'll just simply advise you that you'll see
22 them used again and again and again over the
23 years.

24 There were some, on page 18 now if I
25 can direct your attention there, there were some

1 additional ways that this material has been bought
2 forward to the board. And in this particular
3 application that was in 2007, you'll see a slight
4 variation on the ones that I just showed you
5 before. But quite frankly, if you review them,
6 you'll see that the same issues are repeated again
7 perhaps in a slightly different order, but in fact
8 they're the same things.

9 I did a hearing in 2007 where I
10 provide you with what I considered to be at the
11 bottom of page 18 my factors. ATCO Electric, a
12 different company than the ones that were
13 mentioned earlier, has set forth a number of
14 criteria. And in this one, it was a relatively
15 small 144 line. But if you go down to the bottom
16 of the page, this was in the Eastern Alberta
17 Transmission Line, which was designated critical
18 infrastructure when that document was submitted to
19 the panel. These were 500 kV lines, just like
20 we're dealing with here, big ones, tall, high
21 steel, but the factors are the same. They are the
22 same things that you see again and again and
23 again.

24 Page 20, what I'd like to just briefly
25 mention to you is that in a decision rendered this

1 year, 2017, the panel again, and this is in the
2 bottom 2 italics, they again site agricultural
3 impacts, residential impacts, visual impacts, et
4 cetera. Same thing 2017, it hasn't gone out of
5 date, these are still useful and valid criteria
6 that, at least in my submission to the panel, form
7 the basis for valid power line route evaluations.

8 I would mention one other thing, by
9 the way, and that's at the top of page 20 before I
10 leave that. In 2011, in the Heartland project, a
11 large power line that was to go around the City of
12 Edmonton, the EPRI, or the EG as I have
13 abbreviated, methodology was canvassed in
14 cross-examination. It was not, I repeat not part
15 of AtaLink's application and they didn't use the
16 technology. But what it does tell you that
17 AtaLink's, a huge transmission facility operator
18 in Alberta, was casting about for additional or
19 new or different ways to do route planning. They
20 saw the EPRI-GTC method, and they had a look at it
21 but they didn't utilize it. They stuck with the
22 tried and true tested methodologies that, in fact,
23 the Commission represents right there in the third
24 paragraph on page 20, those same factors again.

25 I have provided you in appendix 13 the

1 cross-examination between Mr. Foley and one of the
2 counsel for landowners. You can see what he had
3 to say about it and decide for yourself whether
4 that additionally informs your opinion about the
5 utilization of that methodology.

6 There's a couple other factors that I
7 want to bring to your attention, and that's on
8 page 21. In the Alberta situation the board
9 requires, and it's actually a mandate
10 circumstance, consultation. Well, Manitoba Hydro
11 has definitely done consultation. It was the PEP,
12 public engagement process, and to the extent that
13 they provided you with a great deal of information
14 that came out of that, I felt it was worthwhile
15 just to have a quick look at, in a couple of
16 decisions I found, what farmers had to say when
17 they were canvassed in Alberta. And as you can
18 see, again, we find the same criteria, stay away
19 from residences, minimize impact on ag land, and
20 so on.

21 At the end of this section on Alberta,
22 in the middle of page 22 I provide you with what,
23 these are my views of the consolidated factors and
24 criteria coming out of the Alberta decisions. I
25 don't need to read them off to you, you can see

1 them. But the number one criteria, in my view,
2 and I think it's backed up by those decisions, is
3 to avoid home sites. In the next one it's follow
4 existing linear disturbances. Those are the two
5 things that I think this panel needs to look at
6 most carefully.

7 Now, Alberta is where I've got most of
8 my experience, where we can find lots of
9 decisions, but I think it's important that the
10 panel understand that Alberta is not alone, in
11 Canada, in these evaluations and in deciding what
12 criteria are useful. I have provided you with a
13 series of cross Canada routing criteria, starting
14 with Quebec.

15 In the Quebec situation, they actually
16 came up with a study that was part of a
17 consolidated cooperative review with the farmers
18 and the power company. And they listed a whole
19 bunch of those factors that are set out on the top
20 of page 23. What is important, and this is
21 important in the bigger sense than just Quebec,
22 they stress that the factors that they were
23 looking at were not necessarily in order just
24 because they showed up on the page that way, it
25 was important that the factors you use be relevant

1 to the area you are going through. Be relevant to
2 the types of environment, the type of land use,
3 the type of home sites, the type of vegetation
4 that was involved in that particular segment of
5 the route. In other words, you don't have the
6 same criteria uniformly applied from top to
7 bottom. That's a very important consideration,
8 and they actually listed it as one of the factors
9 that they took into consideration in the routing.

10 In Ontario we've got three different
11 decisions that I could find. They set out same
12 type of situations again. What they don't do is
13 talk about residences using that word, they use
14 existing land uses, which is a pretty easy bridge
15 to residences in residential uses.

16 There are additional study criteria
17 listed in Appendix 17, and to the extent that some
18 landowners provided them with actual material that
19 they believe were important, they are set out in
20 the italics at the bottom of page 24, and you'll
21 notice landscape, visual assessment, proximity to
22 residential dwellings, and impact on health, and
23 noise from transmission lines.

24 And by the way, I do want the panel to
25 understand that transmission lines have more

1 impacts than just visual. Transmission lines can
2 be noisy, and depending on the weather, they can
3 be very noisy. The health issues I'm not
4 qualified to comment on, but I've got good ears
5 and I can hear power transmission line, and I can
6 make that observation with no risk of
7 contradiction.

8 Saskatchewan, I could only find one
9 written decision despite looking very hard. And
10 to the extent that the individuals whose lands
11 were potentially affected by the power lines
12 provided a great deal of impact, they were
13 mitigation options devised. But the big thing on
14 this one was the least agricultural impact. And I
15 think it's fair to emphasize that this was
16 relatively unoccupied land. This was, it was not
17 a long line, but the line was going through
18 basically farmland. And what they did in these
19 situations is that they put the power line on the
20 fence lines. And we'll talk more about location
21 of towers and things like that. But the biggest
22 issue in this one was to reduce the impacts on
23 agriculture.

24 British Columbia, again, we could only
25 find one, there was actually a discussion about

1 the key issues. And the B.C. issue that I've
2 provided really doesn't have much concern with the
3 way things are in Manitoba. It was dealing with
4 totally different land uses. And from that
5 perspective, I don't think we gain much in the way
6 of British Columbia information.

7 But what I can say, from the middle of
8 page 26, is that Canada wide, we have seen the
9 same things again and again as we found in
10 Alberta. And I don't think that it's outside my
11 capacity to form an opinion that avoiding
12 residences, yards and farm buildings is probably
13 the most important cross Canada consideration when
14 we're routing power lines.

15 The next one would be the least
16 possible inconvenience to farmers. We want to use
17 boundary lines or existing linear disturbances to
18 site those lines and we want to avoid high quality
19 agricultural areas.

20 I think the panel itself would have no
21 trouble finding those same decisions or those same
22 conclusions if they went through those same
23 criteria by province that I went through.

24 The next thing I'd like to just bring
25 to your attention starts on page 27, this is the

1 other end of this same line. I would think it's
2 of no small interest to the panel what they think
3 is reasonable in Minnesota. But Minnesota is
4 actually governed by legislated criteria. In
5 other words, it isn't up to the power company to
6 decide what they want to look at and what they
7 don't. It's interesting, in my view, that the
8 very first one, A on page 27 in the italics, is
9 effects on human settlement. Minnesota doesn't
10 have any trouble at all putting right up front the
11 same issues that most of Canada has set forth, and
12 that is the effects on human habitation. Number
13 one item.

14 Costs, which we will hear Manitoba
15 Hydro seems to want to emphasize, is number 12
16 down the list in letter L.

17 So to the extent that I think they
18 have got their priorities right, I just recommend
19 to the panel to consider what the other end of
20 this line routing criteria are that are going to
21 have impacts on that.

22 The only other place I could find my
23 research that had used the EPRI-GTC model was in
24 Kentucky. And it was interesting that the built
25 environment, and you'll recall that there are

1 three criteria that the EPRI breaks down, built,
2 natural and engineering. The built environment
3 was 60 per cent of their criteria. They, again,
4 don't have any problems reviewing the
5 methodologies and saying, we are going to
6 emphasize the human side of this routing set of
7 impacts.

8 I think it's also useful to note that
9 the Kentucky decision specifically noted or
10 indicated that the criteria they selected needed
11 to be based on the specifics of the area they were
12 going through. In other words, they were just
13 going to take this method, throw it up against the
14 wall and say, yup, there it is, we're going to use
15 it as it comes out of the box. We are going to
16 specifically evaluate the environment we're going
17 through. And when I say environment,
18 Mr. Chairman, environment means people, natural,
19 soils, topography, you name it, that's the
20 environment in its broadest sense. And quite
21 frankly, that really is the appropriate way to
22 look at the environment. I think it's an
23 artificial distinction to say that trees and fish
24 and mammals constitute a unique form of
25 environment. The environment is everything. And

1 it includes people and agriculture and land uses
2 and all the types of things you see around you.
3 So I would just put that forth as a consideration.

4 The next element I want to just
5 briefly touch on is understanding and applying
6 routing criteria. And as we will see, finding
7 what the Alberta panel at least and myself have
8 indicated is called the superior route, and being
9 convinced it is, in a comparative sense, the
10 superior route. It will prove somewhat
11 challenging as we go through the Manitoba Hydro
12 methodology.

13 And I guess what I want to just
14 emphasize to the panel about this is that superior
15 routing means that you have minimized the impacts
16 on the lands and the people and the environment
17 through which the line and the conductors will
18 pass. A superior route cannot be judged in a
19 vacuum or in isolation. You can't be convinced
20 that a route is superior until you have had
21 something to look at it against or to compare it
22 to.

23 Now, this process that Manitoba Hydro
24 has used attempts to do this type of thing but as
25 we'll see, there is a great deal of difficulty

1 making that comparison actually understandable, at
2 least in my view it is, and I'll explain why I say
3 that. But I think it's important that the panel
4 always be on the lookout for the superior route,
5 and be able to make that judgment in a way that
6 you can convey in a written decision, following
7 administrative tribunal principles, so that not
8 only have you understood it but the people who
9 read it can understand it.

10 There's a further issue about the
11 routing criteria that I just want to make brief
12 mention of, and that is -- and this was very
13 important in the Bipole and I learned about this
14 as I went through that experience -- tower
15 spotting, in other words, where the actual tower
16 will be set, as I understand it, and I could be
17 corrected, is something that comes after the route
18 itself is evaluated and approved. In other words,
19 the towers may be here or they may be 50 metres
20 way or the other. But I think it's fair to say
21 that tower spotting can significantly increase or
22 decrease impacts, especially in agricultural land,
23 obviously in agricultural land. To that extent I
24 have provided the panel with just a little bit of
25 background information on tower spotting. I'm on

1 page 29 now. And what I would just point out to
2 you is there are four possible settings. The
3 first is uncultivated, bush, in this part of the
4 world probably Crown land in most cases, not
5 always. The next most desirable is headland, and
6 I have provided you with a picture of that on this
7 particular page 29, and that's where a farmer goes
8 by something on either side, as opposed to having
9 to farm around it. The next one is where -- and I
10 have shown you pictures of all of these in the
11 appendix, I won't spend our time doing it now --
12 where you push a tower out into a field, but maybe
13 between 20 and 30 metres, and the farmer can still
14 go by it on one side because it's too close to go
15 around. It still has to be maneuvered out from
16 the edge, go by the tower and then go back to the
17 edge of the field, in a loop like that. That's
18 the next most, but you have to be careful you
19 don't get too far out, because if you do, then you
20 end up with what you called mid field placement.
21 And mid field is where you have to literally
22 circle all the way around it, and that's clearly
23 the most problematic in a whole variety of ways.
24 So what I would say is that, if this
25 panel deems it reasonable to put conditions in, as

1 I think they can do, my recommendation is that
2 they would seek to have Manitoba Hydro emphasize
3 the uncultivated, the headland one side, or the
4 headland positions utilized where tower spotting
5 is going to be implemented, because clearly that
6 reduces impacts, and that I think is an important
7 consideration.

8 So I'd like to now go to the
9 evaluation critique, page 31 of the Manitoba Hydro
10 routing process using the EG process.

11 Before I do that, though, I think it's
12 fair to go back and look at what I would consider
13 the criticisms of the Manitoba Hydro process in
14 Bipole III, but in addition to that, guidance. In
15 other words, your panel members, differently
16 constituted, had something to say about what they
17 wanted the next time we came into a venue like
18 this with a question like this; where should this
19 route go and how should we figure it out? The
20 criticisms that I think are important are set out
21 in the quote, the bottom of page 31:

22 "The process appears to have been
23 cumbersome, unclear, and open to
24 subjectivity."

25 I want you just to keep those three words in your

1 mind as we go through this process later on.

2 The panel also at that time had a
3 comment that indicated that the process was flawed
4 by a combination of subjectivity, lack of clarity
5 and false precision. In other words, you know,
6 what do you want to call it, three decimal points
7 as part of the evaluation? That's false precision
8 when you're sitting here dealing with something
9 that requires judgment and weighting. You can't
10 sit there and put three decimal places on a number
11 and tell me that that represents valid routing
12 approaches, at least in my view.

13 The other element that the board cited
14 is that the multiplicity of criteria makes it very
15 difficult to see a clear path in how you arrive at
16 your decision. And in this example the SSEA
17 program, S-S-E-A abbreviation, had 23 different
18 criteria, plus four criteria for public responses
19 and a mechanism for applying findings for
20 Aboriginal traditional knowledge. Those 28
21 factors were used to generate numerical scores for
22 routing alternatives for each line segment. That
23 sounds pretty familiar to me, relative to what
24 we're talking about today. Well, the board wasn't
25 impressed with that. The board was concerned that

1 this created in some cases apples and oranges
2 comparisons.

3 So, to the extent that I think there
4 was some instruction available to Manitoba Hydro
5 to help guide it in terms of what they should and
6 should not do, I think the ones that I have just
7 reviewed with you were pretty important. We'll
8 find out in a minute or two whether they, in fact,
9 adhered to those or not.

10 The last comment that I would make up,
11 at the top of page 32, and this again, boy, this
12 hearkens to what we're talking about here right
13 today.

14 "The scores attached to each of the
15 criteria appears simply to be judgment
16 calls."

17 And Mr. Chairman, I want to emphasize that it's
18 your judgment, the Commission's judgment that's
19 most important in this process. You'll have to
20 decide whether the judgment calls that you have,
21 and will be seeing and did see when you reviewed
22 the Manitoba Hydro process, whether in fact those
23 judgment calls can be substituted for your own or
24 whether, in fact, that's not the best way to go.

25 I think what I'd like to do now is get

1 to my view of this and what I would say is how the
2 Bipole report relates to this process that was
3 using the EPRI-GTC process.

4 I have written a paragraph, and it's
5 one of the few that I'll actually read at the
6 bottom of page 32, because I want to tell you what
7 I think about this thing in its overall sense.

8 "The use of algorithms and computers
9 to process information and to generate
10 recommendations and routes is totally
11 dependent upon clear, objective,
12 logical, and most important,
13 appropriate inputs. The process of
14 evaluating routing factors by
15 assigning weights and percentages to
16 multiple criteria will generate
17 results in the form of a mathematical
18 score. With the EG model, the lowest
19 score or least cost is said to
20 represent the lowest impact, but a
21 review of that scoring and weighting
22 process shows that there could be
23 wildly different results depending
24 upon the myriad of basically
25 subjective and unrelated series of

1 sequential decisions made during the
2 process that generated those inputs."

3 And I think, I struggled to write that
4 paragraph as short as I could, but I think that
5 really does tell you what I think about what we
6 have got in front of us as we go through some of
7 the details.

8 At the top of page 33 there's a
9 couple -- well, I will begin with some discussion
10 on what I consider to be factors. I cover two
11 factors on page 33. And what I'd like to do is
12 just indicate that my view of the EG process has
13 the inherent flaw of false precision. And I say
14 that based upon the preference determination step.
15 And the preference determination step was where --
16 and I'll get into some more detail on this -- a
17 committee of management folks decided what the
18 weights would be. Well, if you are going to sit
19 there and tell me that the route is best decided
20 by judgment and otherwise, and you assign a fixed
21 number to it that applies throughout the whole
22 route, in advance of any specifics, in advance of
23 any specifics, I would suggest to you that that
24 route that you're saying is so precisely evaluated
25 by the numerical weights and calculations is an

1 example of false precision. Why? Because the
2 input into it is purely subjective, purely
3 subjective. So how can you call a purely
4 subjective based number precise? If it isn't
5 precise, then it's an example of false precision.
6 It's a logical chain of events.

7 The second element that I felt
8 represented false precision was that the EPRI-GTC
9 methodology -- and I went back, and the first
10 thing I did, by the way, was to pull the original
11 research paper that provided the guidance on how
12 this was done. And I'm sure the panel has done
13 the same thing, or their staff has, you've got the
14 original document. They indicate in there very
15 clearly that they used a one-third, one-third,
16 one-third evaluation process based on environment,
17 built environment, natural environment and
18 engineering. And this is at the bottom of the
19 second paragraph in italics.

20 "These three perspectives are weighed
21 equally, 33 per cent, in this example,
22 but these weights could be changed to
23 make a routing solution more sensitive
24 to the built environment perspective,
25 the natural environment perspective or

1 the engineering environment
2 perspective."

3 Now, I specifically asked, and I don't
4 know whether you folks on the Commission were
5 actually at that workshop, I think some of you
6 were. You may recall I asked the question
7 specifically, did you give any consideration to
8 changing the one third, one-third, one-third? And
9 I was told, no, we just used it because they used
10 it and we adopted it.

11 Mr. Chairman, if you are going to take
12 a thing like this and apply it to Southern
13 Manitoba, out of the State of Georgia, I don't
14 think there are too many peaches in Manitoba. I
15 think there's different considerations in Manitoba
16 than there is in Georgia. The significance of
17 that is that if you adopt a methodology, a
18 mathematical methodology, without any
19 investigation, without any evaluation of what
20 those criteria should be broken down, that's an
21 example of false precision. No justification for
22 adopting it, no analysis, no nothing why we used
23 exactly the same as they used. Well, that's
24 another example of false precision that this
25 panel, in its previous iteration, said that's bad,

1 you shouldn't do that. A method that has false
2 precision is subject to manipulation, review.
3 It's weak, it's not going to provide you with the
4 best outcome.

5 I guess the next issue I'm going to
6 talk about is the fact that the CEC, back in the
7 Bipole report, was critical of invalid
8 comparisons, at the top of page 34. And in fact,
9 I think there was an IR from Commission staff on
10 this very issue about the business of built
11 environment concerns which, of course, is
12 contrasted in this process to the natural
13 environment. And if you record both of those
14 things equal weight, it's pretty obvious that
15 we're going to have a cancelling of the effects,
16 because the environmentalists, the biologists are
17 going to emphasize the natural undisturbed
18 environment, whereas the agrologists, the farmers
19 are going to emphasize the built environment. And
20 when you're in a mathematical process where 1 is
21 the best and 3 is the worst, if you've got two
22 equally rated groups that rate those things
23 exactly opposite one another, it's pretty easy to
24 see what happens. They just literally disappear
25 from the calculation. Right? 3 cancels 1, 1

1 cancels 3, and it's gone. Well, that's an invalid
2 comparison. That's something the board was
3 critical of in the Bipole scenario.

4 The next element is the emphasis on,
5 and I think this is a really important one, the
6 CEC advised Manitoba Hydro back in Bipole II:

7 "Discontinue using undeveloped Crown
8 land as a default routing option
9 without appropriate assessment of the
10 impact."

11 My emphasis in the report. Let's look at what
12 Manitoba Hydro actually said in words, in their
13 application, under the built environment one of
14 the bullets, and I'm reading this time again:

15 "The percentage of Crown land versus
16 private land on each route was
17 considered. Due to Manitoba Hydro's
18 established and clearly defined
19 process for the acquisition of private
20 land, the risk to schedule was seen as
21 lower for routes with more private
22 land. Routes with more Crown land (AY
23 and SEG) were scored less favourably,
24 i.e. higher, meaning higher number, 1,
25 2, 3. If there is more Crown land,

1 there is a potential increased amount
2 of work and time associated with the
3 Crown consultation process."

4 What happens if you cancel the natural
5 and the built, if they zero out? But your process
6 in the next stage under the built environment
7 says, we're not going to use the Crown land
8 because it's too much work. You automatically
9 emphasize the environmental side. It's an
10 unintended consequence of this judgment. Think
11 about it for a minute. We're not going to follow
12 your rules that you set down, which was to
13 appropriately assess impacts, we're just plain
14 going to avoid it because it's too much work,
15 because we can go out there and expropriate a
16 landowner easily.

17 Well, Mr. Chairman, in my view, it's
18 perverse for a scenario to have a Crown
19 corporation that avoids using Crown land for a
20 Crown purpose and, in fact, goes to private land
21 because it's easier. Supreme Court of Canada said
22 the expropriation of property is one of the
23 ultimate exercises of governmental authority.
24 That means you don't undertake it lightly. You
25 don't do it because it's easier. I can't say this

1 too emphatically. The decision to use private
2 land because it's easier to obtain is
3 unjustifiable and terrible routing criteria. It's
4 just terrible.

5 Anyway, I need to move on because I
6 can't get too bogged down on that one particular
7 element.

8 The next issue I need to talk about
9 begins on page 35. It's called the Preference
10 Determination Model, and they are discussed in
11 pages 5-119 of chapter 5, and uses a 1, 2 or 3
12 assigned score. There is a problem when you use
13 mathematics to do a rating scenario, and that is
14 particularly, and just think about it for a
15 minute, when your objective is to decide a rating
16 based upon the lowest number, like golf, you want
17 the least amount of strokes, but when you are
18 doing that and you use 1 as the best, you've
19 automatically got a pretty low number regardless
20 of the weighting; 2 is 100 percent more than 1.
21 Any weighting you do of 2 is going to end up being
22 a significantly greater aspect in the addition
23 when you are adding these things up in a summation
24 type of analysis. So you have to be really,
25 really careful about how that's going to work.

1 I'd like to give you an example of
2 how, in my view, it didn't work. And in that
3 respect what I have provided you is some material.
4 And before I get there, what I'm going to just
5 mention to you is this is the B series of
6 comparisons, and it's at the end of the process.
7 But it's important that I show it to you now
8 because it was used over and over again in this
9 rating of 1, 2 and 3, best, middle and worst.

10 So what I'd like to visit with you now
11 is that if you looked at the B scores, BMX was
12 rated 1.66, BMY was 1.15, and BOB was 1.49. Those
13 ratios are either 44 per cent higher or 30
14 per cent higher than the lowest rating. So based
15 on that, BMY became the preferred route. So what
16 I'd like to do is just get you to turn to page 36
17 of the report, and I'm going to have you look at
18 my table there. What I want you to see, and
19 remember what I'm doing here is I'm giving you
20 insight into this numerical scoring and evaluation
21 process. If you look at the middle of page 36 in
22 my report -- we're not up on the screen yet, we'll
23 be there in a minute -- I want you to see how
24 closely the criteria, when I'm talking about
25 criteria I'm talking about the weighted factors,

1 how closely they showed up for five out of the six
2 ones that are in the table that was used. Just
3 run your finger across the page, cost identical,
4 system reliability identical, risk to schedule .25
5 difference, .025 difference, environment minimal
6 differences, environment built .35. Look at the
7 subtotals, .875, .855, .895, three decimal places
8 of precision. Remember that comment about the
9 board and false precision? So then now when you
10 look at those elements, the difference is only .04
11 or 5 per cent of the whole score process. Where
12 does the rest of the difference arise? Community
13 score, look at that. One item, 2.5, 1.0, 2.0.
14 It's pretty easy to see where the final score
15 comes from, one item.

16 So now what I'd like you to do is
17 understand that this, to my mind, is a system that
18 simply isn't working when you understand how
19 closely these routes resemble one another. And
20 what I want you to do now is turn to the first
21 pages of the handout that you got this morning.
22 And what it shows on there is, it's two pages,
23 three pages actually, and it's the map that's up
24 on the wall, up on the screen. It's map 5-21.
25 Does everybody have it? We can get you a copy,

1 sir, if you need it. Everybody good? Great,
2 thank you.

3 Okay. What I want you to do, and I'm
4 just going to use my laser pointer, is I want you
5 to realize that these are the three items, I have
6 marked them with an arrow, okay. These are the
7 three routes that they are comparing to one
8 another. The only place, you can look at your map
9 with your own eyes, that there's any what I'll
10 call significant difference is right there in
11 terms of actual routing. This BXP, not it. This
12 is it, it follows it all the way up through to
13 here, all the way up to there. That's the
14 similarity of these routes.

15 Now, what I want you to do is turn to
16 the next page of that document that you have in
17 front of you, and you will see it says route BMX,
18 route BMY, route BOB. And you will notice BMY is
19 the preferred route. I just want you to take your
20 three fingers on those three columns and go down
21 the line with me; potential relocated residence,
22 identical; proximity to residences, 87, 89, 87;
23 proposed residential developments, 20, 20, 20;
24 current agricultural land, there's one acre
25 difference; annual crop rating, identical; hay

1 land, four acres difference; capability for
2 agriculture, it's a value, but the value is two
3 points difference; classes, within 3 units of
4 acres; acres of class 4 to 5, it's within 5 or 6;
5 proximity to intensive hog operations, 10 acres
6 difference; digital crossings of prime
7 agricultural lands, 222, 226, 222; next one is
8 identical, identical, difference of 1, difference
9 of negligible, and on it goes. Yet, going back to
10 page 36 of the report, we have a difference in
11 these things, and it's shown at the bottom, where
12 the final scores are 45 per cent different, 26
13 per cent different, 40 per cent different, based
14 on this one characteristic of community. That's
15 where the routing decision is made.

16 Ask yourself, how can it be that much
17 different when these routes are virtually clones
18 of one another? Just ask yourself. How reliable
19 is a valuation that goes out to three decimal
20 points, that has virtually no difference in the
21 route characteristics?

22 Mr. Chairman, you called it, or your
23 group called it before false precision. I'd
24 suggest to you, sir, that this demonstrates to you
25 this methodology has, in fact, used false

1 precision again.

2 Let's go one step further on this one.

3 Remember when I told you that it was the community

4 scoring that was the most telling in the

5 mathematics? Let's find out how the community

6 scoring was devised or evaluated. Can I get you

7 to go to the next one? This is the next page in

8 your document. This is copied right out of their

9 EIS. This is, in fact, the community discussion.

10 I'm going to use my laser pointer on the screen

11 here. There is your scores right there. What I

12 want you to realize is that we are talking about a

13 discussion that is the only information this panel

14 has to evaluate that community score. That's it.

15 What I'd like you to look at is the fact that

16 there is no mention at all of the BMX and the BXP

17 routes, they are not mentioned at all. What do we

18 have mainly, we have BWZ, BWZ, BWZ, and this whole

19 top part is all BWZ. Then we get to the bottom

20 and we say this is important, route BMY ranks

21 highest from the FN MEP perspective. Route BMY

22 does not address the Town of La Broquerie

23 landowners and livestock operators. What's the

24 score given to community for BMY? This is a test.

25 They gave it a 1, the best. It's good for 1, and

1 it fails to address the other altogether.

2 Mr. Chairman, if you could understand
3 how they did that rating of 1, 2 and a half, 2,
4 you are a much better man than I am. This is the
5 relationship to the opaque judgment that was
6 criticized so much back in Bipole III. We have
7 seen it again. And you want to remember that this
8 example I am giving you, Mr. Chairman, is for the
9 selection of the final preferred route. This is
10 the critical stage of judgment right here in front
11 of you that decided which of these routes they
12 picked. So ask yourself whether, in fact, that
13 constitutes a reliable way and methodology to
14 decide what a route should be?

15 The next issue is the one that
16 probably bothers me as much as the Crown land.
17 And that is the process of arriving at final
18 weights and scores. And in the discussion,
19 Mr. Toyne went through this to a certain degree.
20 This involved the Preference Determination Model
21 and the percentages that would be used to weight
22 various criteria.

23 I had a little problem, by the way,
24 when Mr. Toyne was going through that
25 cross-examination. In the EIS, it was indicated

1 that there were three people, the management team
2 who made these decisions on preference
3 determination weightings. Mr. Toyne's
4 cross-examination found out, in fact, it was four,
5 two electrical engineers, two civil engineers.
6 How you can mix that up is absolutely beyond me.
7 I have no idea, I'll just leave that to the panel
8 to decide whether that's a relevant consideration.
9 Nonetheless, the management team back in 2013,
10 that date is important, made a decision that they
11 were going to weight cost 40 per cent. The reason
12 2013 is important is because there is no PEP,
13 there is no ATK, there is no consultation at all.
14 But what happened, the management team decided
15 that cost and other Manitoba Hydro considerations
16 were most important and, in fact, they ended up
17 being cost 40 per cent, system reliability 10, and
18 risk to schedule 5. Those are self-serving
19 Manitoba Hydro considerations. They don't deal
20 with the impacts of a power line route.

21 I thought the process was to find the
22 lowest impact route, not to sit there and serve
23 every interest of Manitoba Hydro. The issue here
24 is to find a route that, in fact, minimizes the
25 impact on the environment through which it passes.

1 I want to read another short paragraph
2 to you, because the importance of this cannot be
3 overemphasized.

4 "Senior Manitoba Hydro managers, the
5 management team from the transmission
6 business unit set the criteria
7 weightings that are used in the
8 Preference Determination Model
9 presented in 5-9."

10 This is the key phrase:

11 "Because this is the final step in
12 route selection, high level criteria
13 and weightings set by the management
14 team represent the key considerations
15 of Manitoba Hydro in decision-making
16 related to transmission line
17 projects."

18 Do you notice the word "the key
19 consideration," not a key consideration, the key
20 consideration.

21 Mr. Chairman, the Commission has to
22 decide whether this is a sufficiently important
23 criteria weighting to agree with Manitoba Hydro
24 way back in 2013 -- we're here in 2017 now --
25 whether that decision had so much influence on the

1 outcome of this routing that it actually
2 invalidates the process.

3 And I would suggest to you that it
4 looks to me like it might. This aspect deserves a
5 little bit more discussion and consideration.

6 This occurred to me as I was reviewing some of
7 this material and it came to me more forcefully as
8 I was just thinking about it.

9 Manitoba Hydro has attempted to sell
10 this route process, this routing methodology, on
11 the basis that it represents a tried and tested
12 methodology out of Georgia, used elsewhere. That
13 would be true if, in fact, the methodology was the
14 one they used. You might actually say, yeah, it's
15 been used before, so be quiet Berrien, we're doing
16 something that's accepted. But if you start to
17 look closely, you'll find out that in fact that's
18 not the case.

19 Why would I say that? Well, if you
20 look through the EPRI-GTC original paper, you will
21 not find the term preference determination. I
22 asked the question in the workshop, where does
23 preference determination come from? I was told
24 this is just another name for expert judgment,
25 expert judgment. The expert judgment that you

1 will find as you review the EPRI methodology in
2 the original document was actually done by
3 experts, and it was done at the end. It was after
4 they had all the input from the landowners and
5 everything else like that, they sat down and
6 decided what the weightings would be, not back at
7 the beginning before they had any input at all,
8 but at the end. And it was made by people who
9 were routing experts, not by engineers who were
10 looking for the best interests of Manitoba Hydro.

11 The other thing is that preference
12 determination, this is again important, if you
13 follow the methodology of EPRI, they used this
14 funnel where they did macro corridors, valuations,
15 final route selection. Preference determination
16 was used in all three steps. In the EPRI, expert
17 judgment was used at the end, after they had gone
18 through all of the processes of doing weightings
19 and all the rest of that sort of thing based on
20 criteria. They didn't use expert judgment, true
21 expert judgment until the very last step where
22 they applied percentages that they decided on at
23 that point.

24 The difference is significant.
25 Manitoba Hydro decided in advance, preference

1 determination, here is the weights and criteria,
2 and we're going to apply them at each stage of the
3 process. Gentlemen, ladies, that's not EPRI-GTC,
4 that's some new Manitoba Hydro hybrid. If you're
5 going to claim that this is the way you did it,
6 you should do it the way they did it. If you
7 don't, you've got to stand on your own two feet.
8 That may be difficult by the end of the day, but
9 that's what's got to happen.

10 The result of the process that
11 Manitoba Hydro used was to create a series of
12 possible routes out of the bizarre 750,000
13 possibilities, and to vet those things to come up
14 with step one border crossing.

15 Now, what I'd like to suggest to the
16 panel, and again we're going to do a little bit of
17 map work here, is that a process that sees viable
18 routes lost in a step-wise progression due to this
19 weighting system and this preference
20 determination, may not yield you the best route
21 because the criteria might change. It did change.
22 The final destination did change. There was a
23 number of factors that influenced the progression,
24 the step-wise analysis of possible routes.

25 And what I'd like to do is show you

1 why I say that it's possible viable routes were
2 lost in the step-wise vetting process. In other
3 words, to begin with, we came up with, I think
4 there was 12 routes all together. But as we went
5 through those to try to find a point at which we
6 cross the U.S. border may have left on the cutting
7 room floor routes that actually were viable. But
8 that decision -- by the way, again, ask the
9 question of the workshop, if a route was expunged
10 because it didn't meet the test in one of the
11 earlier rounds, and the criteria changed on the
12 next round, did you bring those first ones back in
13 again? Answer, no. So we've got this step-wise
14 process where we, in fact, lose routes. We shed
15 opportunities, because the steps were taken
16 rigidly from one to the next, even though the
17 criteria changed. And the criteria we're talking
18 about here, of course, is the separation of power
19 lines from one another, this 10 kilometre buffer
20 and so on. So I think we need to just see what
21 I'm talking about when we talk about viable routes
22 were lost.

23 I've got a series of maps. It's the
24 next couple of pages in the document that I gave
25 you, Mr. Chairman.

1 This is map 5-19, it's the preferred
2 route adjustments. This is the final preferred
3 route. And at a point in time in the process, the
4 final route, the blue dot was the one that was
5 picked. Now, it doesn't show up particularly well
6 on this overhead, but on your map that you have in
7 front of you, if you look you'll see there's a
8 little river right here. I forget the name of it,
9 Piney River or something, I don't remember. But
10 if you look on your map, the reason I'm
11 referencing that river is because it's a fixed
12 point, and I want to refer to that fixed point as
13 I take you through the rest of the maps. So we
14 can see that that river is just a little west of
15 the blue dot.

16 Please turn to the next page. Here is
17 Piney East. Notice where that route goes down
18 relative to that river? We don't have the blue
19 dot on this map, but we do have the river. I'm
20 referencing the river so that you can see that, in
21 fact, the blue dot was, and I'm pointing to it
22 right now, just due south of where that red line
23 comes down. That was the route going to Piney
24 East. Piney East was rejected as a border
25 crossing. What happened to the routes to Piney

1 East? They fell on the cutting room floor.

2 Piney West, next map, Piney West was
3 decided that this was in fact a potentially viable
4 border crossing. Please have a look at where that
5 the block is, and what I am taking about is this
6 block here. This is the potential crossing points
7 that existed at that point in the process. And I
8 want you to just, by the way, just look at the
9 graph on the right, the scale right here, just to
10 show you how close the properties are to one
11 another where this routing is, and how far --
12 we're talking about a couple of kilometres to go
13 from here, where this line comes in, over to where
14 the blue dot was just east of the river. We're
15 talking a couple of kilometres. Okay?

16 At the end of the day, what happened
17 when we lost Piney East and we kept Piney West,
18 well, we ended up with a loss of those routes and
19 the adoption -- next map please, Trevor -- this
20 map right here shows you the AQS route that formed
21 the backbone of the final preferred route, even
22 though it changes the north end. All of this area
23 through here is very much like the final route
24 because it went to Piney West. Piney West was
25 deemed to be the appropriate crossing point.

1 Well, what I am going to suggest to
2 you after you look at those maps is that it really
3 caused -- this methodology of sequential route
4 analysis, where something fell off the table,
5 never to be seen again, has a problem with it.
6 Because what you're doing is you're making
7 judgment calls on minimal disturbances, on minimal
8 differentials.

9 And I guess I won't do it again, but
10 I'll simply indicate to you that if you put the
11 maps side by side, and you look at Piney East
12 versus Piney West and the various ways one could
13 get to those two different locations, the process
14 of separating those two things is a distinction
15 without a difference. And what's really
16 interesting is how the blue dot split the
17 difference. Yet everything in Piney East fell off
18 the table. Why? Because we didn't like that
19 endpoint. Piney West, well, that's great -- no,
20 wait a minute, we've got to move it over towards
21 Piney East at the end of the day. Nobody thinks
22 in their mind, well, wait a minute, maybe we
23 should go back and have a look at what we were
24 looking at earlier when we were trying to decide
25 between Piney East and Piney West. It didn't

1 happen. I asked the question specifically, and
2 no, we didn't go back.

3 So I leave that to the panel to decide
4 whether that, in fact, is a valid routing
5 methodology and whether, in fact, you're going to
6 end up with a superior route.

7 Mr. Chairman, I think we're about
8 11:00 o'clock. This is as good a time as any, if
9 I might be so bold as to make that suggestion.

10 THE CHAIRMAN: That's a good
11 suggestion. It's two minutes to 11:00, so we'll
12 be back here, in order to give you as much time as
13 possible we'll be back here at 11:13.

14 (Proceedings recessed at 10:58 a.m.
15 and reconvened at 11:13 a.m.)

16 THE CHAIRMAN: It's 11:13 and we'll
17 start again, Mr. Toyne, or do we turn it straight
18 to Mr. Berrien here?

19 MR. TOYNE: Back over to Mr. Berrien.

20 THE CHAIRMAN: Take it away.

21 MR. BERRIEN: Thank you, sir.

22 Mr. Chairman, I'd like to continue
23 with my review here, I'd like to direct you to the
24 bottom of page 40. The next issue that I want to
25 just briefly discuss is the number of analytical

1 factors that were combined in scoring and
2 comparisons.

3 In the border crossing evaluation
4 step, built had 12 criteria, natural 5 and
5 engineering for 5, for a total of 22 factors. I
6 harken back to the Bipole discussion where 28
7 factors were deemed to be reasonably excessive.
8 The concern with the number of criteria that the
9 panel wants to pay attention to is the prospect
10 for dilution of important criteria. Remember,
11 criteria are not created equal, some of them are
12 much more important than others. So what we're
13 talking about here is that we must be alive to the
14 prospect of dilution.

15 When we get to the mathematical
16 decision-making further into the alternative
17 corridor evaluation model, and I'm at the last
18 paragraph on page 40, we have 27 engineering
19 factors, 46 natural factors, and 59 built factors,
20 for a total of 132 contributing factors. I'm kind
21 of guessing that somebody forgot to read the
22 Bipole reasons for decision where they were
23 concerned that 28 was an excessive number.

24 The dilution factor that I refer to
25 really has a level of importance that the panel

1 shouldn't ignore. And what it comes down to is
2 the final weighting of the criteria in the
3 preference determination step shows, in this
4 process, how little this Manitoba Hydro hybrid of
5 EPRI gives consideration to the factors, not only
6 deemed important across Canada, but the factors
7 that were provided to them in the public
8 engagement process. And in the Round 2 results of
9 PEP, the top two categories by a wide margin, top
10 of page 41 now, Mr. Chairman, is separation from
11 residences and urban areas and avoid urban lands.
12 And Round 3 of that, property and residential
13 development was the top category. However, with
14 that knowledge, Manitoba Hydro decided that it
15 needed to keep the 7 and a half per cent total
16 weight accorded to built criteria.

17 A little bit of math on my part, 50.6
18 per cent of the built criteria in the model was
19 set forth by landowners, I mean, when you did the
20 breakdown of how much they said was important and
21 what the different issues were. But if you take
22 50 per cent of 7 and a half, you've got 3 and a
23 half per cent of the decision-making is accorded
24 to the most important criteria across Canada.
25 That's effectively meaningless, Mr. Chairman, it's

1 effectively meaningless. In my view, that is an
2 exceedingly important factor in deciding the
3 reliability of this methodology. If the
4 landowners take the time and effort to show up at
5 these various workshops and all the rest, give you
6 their opinion, and you effectively throw it on the
7 floor and stomp on it without giving it any valid
8 mathematical consideration, you have rendered all
9 of their work effort and interest useless. I
10 don't think that's right. I think that when those
11 landowners show up, they should expect the respect
12 that their opinions will, in fact, have some
13 weight in the decision-making.

14 The result of that is that the process
15 that ignores those landowner views and the
16 Canada-wide views lacks credibility. And I don't
17 think the board can put a lot of judgment and a
18 lot of faith in a route that flows from that kind
19 of methodology.

20 The next section my report starts on
21 page 42. There's a couple of things that I talk
22 about there, but I have already discussed those
23 when I was looking at the other maps. And this is
24 the two sections called Piney East and Piney West.
25 I didn't see those were particularly valid

1 separation points because they ended up discarding
2 routes.

3 So let me quickly turn to page 43. I
4 wanted to make some specific comments about the
5 final preferred route that was evaluated. I don't
6 have a lot of these, but I just have a few that I
7 just want to point out, and this is the route
8 planner in me looking at these things saying, hmm,
9 maybe that could have been done a little
10 differently. I don't think this is a big item and
11 a big part of my discussion here, but it does give
12 you some further insight into the quality of the
13 route planning and the final results, and whether
14 in fact they are reliable and can be recommended
15 by you to the Minister.

16 The first thing I would indicate, sir,
17 is that the maps, I mean, look at that map up
18 there. I mean, it's covering a whole route and
19 there's the detail, that's it, okay, until we
20 finally get the aerial photographs and things like
21 this. When we're going through this judgment
22 process of alternate routes, in my view you should
23 have a little bit more than a map that has a scale
24 of, whatever that scale is, it's pretty poor
25 detail.

1 Anyway, when you're going to do
2 segment by segment analysis, it helps to have
3 reference points. I would simply indicate that if
4 the Commission felt it was worthwhile, they might
5 give guidance to future Manitoba Hydro
6 applications that they would include consistent
7 reference points where there's a deflection point,
8 so we know from this point to that point what
9 we're talking about, and have those consistent
10 throughout the process. It makes your job much
11 easier when you're trying to follow through your
12 analysis in your own considerations.

13 The first one of the specific points
14 that I wanted to make is best illustrated just by
15 turning to page 44. This is at the north end of
16 the final preferred route. It jumps out of the
17 southeast loop corridor, it heads south and
18 encounters a railway track. For a company that's
19 as sensitive as they are to costs, this is a very
20 strange routing decision. You come down and
21 you've got two angles that are 75 degrees each,
22 which in parlance of towers, they are heavy angle
23 towers. Heavy angle towers are the ones when you
24 drive around and you look at power lines, are
25 those ones that are so robust that the costs of

1 them can range up to eight times a straight line
2 tower. You don't use these things willy-nilly,
3 you use them sparingly because they are so costly
4 every time you make a turn.

5 Well, Mr. Chairman, all you had to do
6 was a couple of 45's, which are mid angle towers.
7 They are substantially less costly to achieve
8 exactly the same element and, in fact, I think
9 it's probably just a little bit shorter, but most
10 assuredly it is less costly and doesn't create any
11 additional impacts. This is just a technical
12 element on routing that I thought I would bring to
13 your attention that, quite frankly, should be
14 changed. It doesn't need to be this way, it's
15 more expensive than necessary.

16 The next one that I would talk about
17 is the criteria of proximity to home sites. And
18 this is, as I mentioned to you, very important
19 criteria. So I just set out on a map on page 46 a
20 visual that lets you see what I would consider a
21 couple of alternatives are in terms of residential
22 densities. Just look at that BMY. It runs right
23 through some of the densest home sites in that
24 part of the world. The alternative that I'm going
25 to suggest to you, it's no surprise if you read

1 the reports, is to look more closely at the AY
2 routing. Look how it skirts those home sites. It
3 doesn't avoid them all, but it skirts them, it
4 minimizes those impacts. We'll talk with some
5 precision here in a little while about how that
6 skirting shows up in numbers. But I just want you
7 to see this for a minute as an illustration of the
8 critical factor, avoid home sites, and how the BMY
9 route does not take account of that factor in any
10 way at all.

11 I didn't try to count numbers, I just
12 wanted to give you a visual impression of it.

13 Next page, 47, this is a technical
14 issue and I think it's easiest to explain by just
15 referencing the map on page 48. I give you the
16 text on it, but what I want to point out is that
17 the final preferred route, as described in the
18 Environmental Impact Statement, is not the final
19 preferred route that's illustrated.

20 Now, I don't know what they are
21 applying for, whether it's the straight blue line
22 that's on the left side of the picture in 48 which
23 says final preferred route, or whether it's the
24 one where they talk about they come down, and if
25 you look at it, I inserted right there where it

1 says segments in the white box, on the right-hand
2 side, do you see it says segments? Okay. If you
3 look at that it says, it goes along and it says
4 482 and 472, if you see those? And if we look on
5 the blue map, or sorry on the blue line, we see
6 that it's a straight line that doesn't indeed
7 follow segment 482 or 472. It should, if in fact
8 this document is describing the route as the final
9 preferred route.

10 Now, Manitoba Hydro is probably going
11 to get up and tell you, I'm surprised that they
12 haven't made some kind of a, what I'll call a
13 submission change or whatever it happens to be
14 already, maybe they'll do that later. But at this
15 point in time, sir, you don't know which route
16 they're applying for. It's listed as blue, but
17 it's described as the numbers on those segments.

18 So with that, I think you can just
19 decide what you want to do with that, but at this
20 point in time, there's certainly some
21 clarification required.

22 The next section of the report is
23 probably the most consequential, as far as I'm
24 concerned. At page 49 we've got what I have
25 described as the final preferred route as a high

1 impact route. But not all of it is a high impact
2 route. And I want to give the devil his due,
3 because if there is, in fact, part of the routing
4 that conforms to reasonable expectations, that
5 conforms to Canada-wide routing criteria, well,
6 then we should say it does. And I don't have any
7 problem doing so.

8 The whole route, of course, I have
9 illustrated to you is problematic. But let's look
10 at what I'm considering to be acceptable portions
11 of the MMTP route.

12 And by the way, before I go there,
13 what I want to do is just give you a little heads
14 up that what I'm suggesting to you here has been
15 done before, at least in Alberta. I have been
16 involved in a couple of proceedings where the
17 route that was applied for contained a segment
18 that was quite frankly unacceptable. And I said
19 so to the board, in one case the Alberta Energy
20 Regulator, in the other the Alberta Utilities
21 Commission. And I said parts of this route are
22 okay, but this one, this segment is problematic,
23 and at least in my recommendation, you should send
24 the proponent back to review that segment. That
25 said, the parts that are okay, you can go ahead

1 and approve. When I say that, I mean, big me, you
2 can go ahead and approve them, but these other
3 ones are problematic and I think they should go
4 back. And the board actually agreed with me. So
5 they gave them partial approvals. And they got
6 started, they finished the project on time, but
7 the problematic areas were reviewed for a second
8 time. And I think you have the capacity, I don't
9 know how, I'll leave that up to Mr. Green to give
10 you instructions on how you follow the
11 legislation, but I suspect you could give a
12 recommendation that said that. But that would be
13 my recommendation as I proceed into this next
14 segment of the report.

15 So the first part that I would see as
16 acceptable is the 18.5 kilometres that follows the
17 existing south loop corridor. That follows every
18 element of reasonable route selection, existing
19 linear disturbance, existing high voltage
20 transmission lines, there's a corridor that's
21 actually owned by Manitoba Hydro that's a good
22 section of the route, and I think it's fully
23 approvable as it stands, at least that's my view
24 anyway.

25 But one of the things that comes out

1 of that application for that segment is that it
2 has a north/south paralleling of existing power
3 lines. You may recall that in the application, at
4 least in the early rounds, Manitoba Hydro
5 engineers wanted 10 kilometres separation between
6 the north/south segment of the existing line
7 that's out east, I forget the number, 602
8 something, because they wanted to minimize the
9 risk of a tornado taking down two lines at the
10 same time.

11 The panel has to judge the validity of
12 that risk analysis. I think there was some
13 discussion from one of the landowners in the
14 Coalition earlier about the tornadoes. I noted
15 the same thing from that study. I won't go into a
16 great deal of discussion on it, but I provided
17 actually the entire page, that's page 50 in the
18 report, you can read it yourself. But the point
19 of it is, is that the area west of the existing
20 paralleling -- when I say existing paralleling,
21 the portion of the application that I am happy
22 with west of Winnipeg -- is actually the highest
23 risk area. I'll let you look at it and see that
24 for yourselves. But the point of it is that you
25 can't make differential risk analysis that's so

1 impactful to the route without it being a logical
2 analysis, without it being a logical risk. If we
3 can assume the risk here, why is the risk a little
4 further south so unacceptable? I can't answer
5 that. That's a judgment call for the panel. I
6 want to point out to you that they have, in fact,
7 in this routing decided that paralleling existing
8 power lines in an area that this study indicates
9 is probably marginally higher risk than the area
10 further south. If it's acceptable there, it
11 should be a consideration for approvability on
12 another segment.

13 I don't think I need to go into any
14 more detail, I'm not an expert in weather, but I
15 am pretty good at evaluating the conditions that
16 someone uses as a rationale for making a decision.
17 And that's what I think I'm competent to comment
18 upon.

19 I would also say now on page 51,
20 second paragraph, it appears to me that the more
21 southerly segments of the final preferred route
22 would also be, in my view, non-contentious. That
23 segment would be the portion that runs south from
24 the junction of the south end of the SGZ route,
25 where it joins up with the URV route, as seen on

1 map 5-18. And Mr. Toyne, I think we have map 5-18
2 there.

3 Mr. Chairman, I'm just pointing at the
4 map on the wall there, the segment that runs down
5 to here. That going from up above, where I talked
6 about, down to here, this is the portion that is
7 under, in my view, reconsideration. The portion
8 going south down to here, to the modified border
9 crossing, I don't have any problem with. It's
10 going through largely unoccupied land, mainly, I
11 think there's a bunch of Crown land in there.
12 There are some issues right down here with
13 agricultural land, but they seem to have been
14 sorted out with those landowners. So I don't have
15 a problem with the southern end of it.

16 So what I'm saying to you in clear
17 terms is that from that junction south, I don't
18 see a problem with you giving them a
19 recommendation to go ahead. And from the
20 corridor, southern loop corridor Dorsey to Vivian,
21 I again don't see a problem with that segment of
22 the line. It's the middle portion of the line
23 where my concerns rest.

24 Now, as I pointed out to you, and I'm
25 now in the middle of page 51, in the early round 1

1 and 2 evaluations, certain discarded routes were
2 based upon criteria and weights that I see were
3 problematic. First off, they changed the one
4 criteria of the proximity to the existing power
5 lines. Okay. Well, that change means suddenly
6 new routes, even in Manitoba Hydro's view, are
7 back in play. They didn't come back into play in
8 this process, but in my view they are back in
9 play. This is where your discretion,
10 Mr. Chairman, gives you the right to decide
11 whether they should be reconsidered or not.

12 So what I wanted to do was go back and
13 provide to the Chair some evaluation of those next
14 sections that I thought would be useful for you to
15 have in view, so that you could actually see on a
16 comparative basis the characteristics of the
17 route. At the top of page 52, what I want to
18 point out to you is that, to give you a
19 comparison, I selected a route furthest to the
20 east, and that is the -- what is it -- BZG route,
21 the farthest east route from the Piney West
22 review. I selected AY as the Round 2, as a middle
23 route. And finally I select the SIL route as a
24 proxy for the BMY route, because the statistics
25 provided by Manitoba Hydro at the end of the day

1 didn't match the locational elements that the
2 other route statistics did. So if we were going
3 to do a statistical -- when I say statistical, I
4 mean characterization of various factors on an
5 equal basis -- we had to pick ones that had same
6 start and end point, or roughly the same end
7 point. That's why I'm using SIL as a proxy for
8 the final preferred route, because the statistics
9 in the EIS didn't match the statistics for the
10 other two routes I'm using.

11 So with that, what we want to do is
12 say, okay, were going to do this side by side
13 review. But when I went to do it, I noticed there
14 was a problem, and this is no small problem.

15 Could I get you, Kevin, to turn to the
16 next thing?

17 And this is a separate set of pages
18 that I gave you, gentlemen, and what it is, is the
19 reply to IR 251. And what I want you to do is
20 flip back to the third page of that. And it's up
21 on the board here, that's the page I'm talking
22 about. Okay.

23 Now, Mr. Chairman, if you'll bear with
24 me, I want you to grab a pen or pencil, I'm just
25 going to get you to write a few numbers down.

1 Okay? What I want you to do is at the AY
2 location, and I'll point to where I'm talking
3 about right up here, at that point, just right
4 beside it, write EIS right there where that bar
5 is. That's the Environmental Impact Statement,
6 right there, right beside the AY, write EIS. And
7 what I'm going to do is we're going to go down the
8 list, because the same table, same exact number
9 table, 5-27 in the EIS had 21 of the 22 numbers
10 under AY different than the one you're looking at.
11 And I want to give you some of those numbers,
12 because it's important to know what they should
13 have been when that initial evaluation was taking
14 place. We're not going to write them all down,
15 just an important few.

16 The second one down where you see a
17 number 6, put a number 3 under that EIS. This is
18 the potential relocated residences. Back when
19 they were first doing their evaluation, they said
20 there were three. When they provided the answer
21 to the IR to Mr. Toyne, his IR here two or three
22 months ago, it turned into six, double, hundred
23 per cent increase in the number of relocated
24 residences for AY.

25 The next number down, see where it

1 says 68, put 20 beside it. Okay? It says the
2 proximity to residences, where it says 68, write
3 20 right beside that. The next one down, proposed
4 residential developments within the right-of-way,
5 where it says 4, write a 0 next to that one. Go
6 down a few. The diagonal crossings of prime land,
7 if you go down a few you'll see a 140, next to
8 that write 47. Next to the 140, write 47. Go
9 down a few more where it says natural forests,
10 there's a number there, 2,064. Right next to
11 that, please, write 1,370. Go down a few more,
12 wetland acres, you see a 707, write 184. The next
13 one below that says 475, write 89.

14 I picked those ones out, Mr. Chairman,
15 because they are orders of magnitude out. The
16 point is that when the AY route evaluation took
17 place, it was based upon the numbers you just
18 wrote rather than the numbers that are in the new
19 5-27. The implications of that are pretty stark.
20 If you're going to conduct an analysis with these
21 experts that are sitting in these rooms and these
22 workshops, and this is the numbers they're working
23 with and they're wrong, how can the conclusions or
24 the judgments that they make be right?

25 Over on the SIL column, which is the

1 proxy for the final preferred route, that's the
2 final one to the far right. If I can impose on
3 you to write EIS again. In other words, we're
4 going to create another column on the far
5 right-hand side of this document. I'm going to
6 list a couple there that might be interesting to
7 you. Where you see the number 130, this is the
8 proximity to residences, write in 73 beside the
9 130, right there. Okay. We're looking at the SIL
10 proximity, and where it says 130, write 73. Okay.
11 The next number down where it says 31, write 2.
12 Before I go any further, I want you to understand
13 the significance of those two numbers that I just
14 gave you. The people that are doing this
15 evaluation back at the time when they were looking
16 at the SIL, which turns into the final preferred
17 route, were under the impression that there was
18 less than half, or approximately half of the
19 proximity to residences that are actually there,
20 less than, or right about half. When it comes to
21 proposed residential developments, they thought
22 there were 2. There's actually 31. How can you
23 make a judgment on the quality of the route when
24 the numbers are out by so much?

25 We're going to go down a little bit

1 further. Under the 2, you'll see a 639, and then
2 I want you to write 832. That's the current
3 agricultural land value. I have no idea how that
4 number was calculated at the end of the day, but
5 you can see that it's off by several hundred.
6 When we go down to the diagonal crossing of prime
7 agricultural land, you'll see a 140. It's about
8 eight or nine numbers down. Next to the 140,
9 please write 59, approximately one-third of the
10 actual. The next one down, proximity to buildings
11 and structures, a very important category, next to
12 the 72 please write 36, half. Go down a few more,
13 potential commercial forest, it says 521. Next to
14 that please write 1,529. The very next number
15 down, natural forests, it says 1,656, please write
16 in 2,056, almost 500 more. The wetland areas,
17 this is down a couple more, you'll see 383. Next
18 to the 383, please write 526. And then the last
19 number I'm going to give you is Conservation and
20 designated lands, 243. Please write next to that
21 632. Nineteen of the 22 categories under SIL were
22 changed. I have pointed out the ones that were
23 larger changes.

24 I come back to the question, isn't
25 this an example of garbage in/garbage out? If you

1 can't trust the numbers that went into the
2 analysis, how can you trust the result that comes
3 out? I don't know what the right final numbers
4 are because maybe this is something that should be
5 subjected to change again, but I can tell you that
6 those two tables, side by side, bear no
7 resemblance to one another for the two routes that
8 I'm looking at.

9 Okay. This one you'll find
10 interesting, next page. It is the comparative
11 assessment. And actually before I go to the next
12 page, we'll stay at the bottom of 52 for just a
13 moment. What I wanted to tell you is that I am
14 going to provide you, and have in the report, with
15 a methodology that's been used quite a few times
16 before. And in the simplest form it's called a
17 red-green analysis. It provides you with a visual
18 view on a comparative basis for a bunch of
19 important criteria. It's not on the board, we'll
20 get there in a moment. What I just want you to
21 understand is that the visual coding is green
22 represents the best scenario for impact, red is
23 the worst, and yellow is intermediate or virtually
24 no significant difference. So what I wanted to do
25 was go through the categories of the final

1 statistics that I felt were most relevant for this
2 panel to understand. And many of those statistics
3 were, in fact, relatable to the Canada-wide
4 criteria.

5 Top of page 53. But as I went through
6 that list, it occurred to me that there was a
7 pretty empty hole in it. And that empty hole was
8 that there were no features on that list that, in
9 my view at least, captured the most basic element
10 of the First Nations preferences or concerns.
11 This is information that was provided to the panel
12 in chapter 11 of the EIS. So I took it upon
13 myself to do a little bit of mapping and a little
14 bit of accounting.

15 And Mr. Toyne, I'll get you to put
16 that up. This is maps 11-3, 11-4 and 11-5 from
17 that document. This is chapter 11 of the EIS.
18 Okay. These are areas that were identified by the
19 First Nations, in part of the consultation with
20 them, of valued locations or other issues where
21 they had concerns, and important factors. If I
22 was going to provide you with a more complete list
23 than just the ones Manitoba Hydro put in, I
24 thought it was worthwhile to do my best to try to
25 put some of these concerns for the First Nations

1 into this comparative chart.

2 So what I looked at in this one, the
3 first thing you need to understand is this is my
4 best estimate of where the AY line would be, where
5 the AY route would go. There is the final
6 preferred route on this map right here. So what
7 we can do is we can see that there is an area of
8 concern here, up here and down here. So we're
9 able to look at this and say, okay, how long is
10 that line, how long is this line, to put some
11 quantitative element into this area of pure
12 judgment.

13 Next slide, please. These are
14 gathering areas. Again, this comes from the 11-4
15 map. And you can see here that we've got
16 gathering areas. The AY line doesn't show up
17 particularly well on this map, but this is it
18 here. Okay. It shows up much better on the map
19 that you have in your hand. And we've got the
20 preferred route coming down here. The number of
21 gathering sites were counted. Okay. So we've got
22 now another statistic that we can use, and the
23 panel can apply its own weighting to it, but it
24 struck me that this is another area that would be
25 important. And the last map that I was able to

1 use that would give me quantitative data is the
2 hunting and trapping, map 11-5. And you could
3 again track the AY routing here with the final
4 preferred route here. We really ran into a bunch
5 of issues right in through here and through here
6 and down in here. Again, this gave me
7 quantitative data that I could put into a chart
8 that allowed the panel to at least see the
9 beginnings of some of the First Nation's concerns,
10 issues that were left off completely from the
11 final statistics that were included in the EIS
12 that applied to the final preferred route. So let
13 me just turn to the next page, and, Kevin, this is
14 the red-green.

15 This, Mr. Chairman, is the graph
16 display, whatever you want to call it, that I like
17 to think might give you a visual understanding of
18 what the issues are. And the features, you see it
19 right there on the top, it says based on Table
20 5-27 from the EIS, these are the characteristics
21 that were listed in that table that I could do a
22 side by side understanding and evaluation of, and
23 in addition, I put the First Nation's material at
24 the bottom. So in other words, I've got
25 Table 5-27, an extract from it, and then I have

1 added five more.

2 What I want you to see, sir, is at the
3 top, the relocated residences and the residential
4 issues, it's pretty stark that the whole -- every
5 single component on the final preferred route is
6 the worst, some of them by a long stretch.

7 When we get to the agricultural
8 impacts, every one on the final preferred route is
9 the worst.

10 When we get down to historic
11 resources, public use areas, there's some back and
12 forth there. Those areas are, in my view, less
13 important in terms of the kinds of impacts that
14 we're talking about. Many times those things can
15 be mitigated.

16 When we get into the forests, and this
17 is another area where I have to discuss it with
18 you briefly, you'll notice I put question marks,
19 less is better. The reason that I have to put a
20 question mark there is because, in my view, I want
21 to empower the panel to make the decision about
22 whether cutting trees down or putting power
23 structures in the middle of a cultivated field is
24 a better or a worse impact. I have indicated in
25 the red-green comparison that less is better. In

1 other words, the fewer trees you cut down, the
2 better. Well, maybe it is if you want to put the
3 power poles out in the middle of a cultivated
4 field. But if you want to put the power poles in
5 an area where there's trees, and people aren't
6 living, and the remaining trees shelter the line
7 from view, maybe those things would be reversed,
8 maybe the green would be red. In any event, I
9 have told you what I have done and why I have done
10 it, but the question mark is there to allow the
11 Commission to decide the value that would be
12 accorded in this weighting process.

13 I found, at least from a point of view
14 of a straight number comparison, that the stream
15 or river crossings surprised me, because the final
16 preferred route has virtually doubled the number
17 of the AY. I thought going through the settled
18 areas there would be less, but in fact there are
19 more. Well, that's an important one because
20 obviously that's environmental disturbance
21 wherever it crosses.

22 Wetlands, that's a little bit more
23 like I thought. But the BZG at 2-15 was a
24 surprise again, that there's less wetland out
25 further east, surprise, but nonetheless a criteria

1 that you can consider.

2 The next one was a surprise again,
3 existing transmission line crossings. There's
4 more on the preferred route than there is on the
5 AY, or on the BZG, either one. And of course, if
6 you look through the EIS, crossing transmission
7 lines was a big deal. We didn't want to do that,
8 that was costly. But yet we've got more there.

9 The length, and this is from Anola,
10 what the board needs to understand is length and
11 costs are not unrelated factors. 161 is the
12 length. And in fact, the shortest one by the
13 statistics that I could come up with was the BZG,
14 but the AY is 166. Mr. Chairman, those numbers,
15 while they're red and green, they're not enough to
16 sway the decision one way or the other. And the
17 reason is found in the next column down, or the
18 next bar, which is where you've got the cost.

19 Manitoba Hydro has committed to using
20 self-supporting structures as it goes through
21 agricultural land. Self-supporting structures are
22 more expensive than guyed structures. If we went
23 through the eastern route, we would have many,
24 many more guyed structures than we would have in
25 the farmland. The net result, of course, is

1 significantly cheaper. We also don't have to buy
2 everybody out. When it comes to the cost, though,
3 AY is in the middle. And there's a reason for it.
4 We can use a mix of self-supporting structures
5 where it goes through private land, and we can use
6 guyed structures where it goes through Crown or
7 unoccupied wooded land. The uptake, of course, is
8 that the less private land, the cheaper it is to
9 acquire the property than it would be from
10 individual landowners.

11 The next one I found to be a
12 particularly useful consideration and that was --
13 and by the way, these are my own measurements,
14 this is not a statistic that was there, and I
15 indicated on the page before that I added it.
16 Following existing linear disturbances, the AY
17 routing is, in fact, the best. It has almost
18 triple the amount of the existing final preferred
19 route, and actually even more than the eastern
20 route.

21 When we get down to First Nations'
22 concerns, the areas of concern are equal for the
23 AY and the SIL. The areas of interest, there's a
24 small difference that favours the AY. Potential
25 TLE, neither one have. Plant gathering sites, the

1 AY is less attractive. And hunting sites, the
2 preferred route is significantly less attractive.
3 These are not acres, these are numbers, numbers of
4 sites that I can count off the map.

5 The point that I want to make to you,
6 Mr. Chairman, is that you can see visually now,
7 and I think this is what you were asking for, or
8 your panel was asking for back in Bipole is
9 something where you can actually see clearly and
10 quantitatively the differences between routes that
11 were either proposed or were possible.

12 I think this kind of information is
13 what allows you to exercise your judgment. As
14 opposed to being asked to rubber stamp somebody
15 else's series of subjective judgments, this
16 empowers you to decide whether you like what you
17 have seen in terms of the route that's been put in
18 front of you.

19 What I'd like to do now is turn to
20 page 57. This is the conclusions and discussions.
21 And this is my view, this is personal opinion
22 stuff now about what I have seen and what I have
23 been able to find as I went through the process of
24 looking at the statistics. The first off is that
25 only in forestry is the final preferred route a

1 clear winner, but that's only from one
2 perspective. You may see it differently. What's
3 interesting further in the forestry issue is
4 really there's only 25 per cent difference from
5 the highest to the lowest acres. So trees aren't
6 going to be the biggest factor. Engineering
7 issues are noteworthy, given the similar length
8 and costs. And as I said, I don't think costs are
9 the determinative factor.

10 So what we want to do then is look at
11 the issue of how the avoiding Crown land pushed
12 the selection of the final preferred route over
13 towards the agricultural lands. And I want to ask
14 the panel to do a review itself of table 24-1.
15 I'm not going to take you there, it takes too
16 long. But what I want you to see is how the
17 process, up till now, has favoured the
18 environmental over the built considerations to a
19 degree that I think is inappropriate.

20 And if the panel goes back and looks
21 at these things and starts to accord its own
22 weight to the various factors, they may come to a
23 different conclusion.

24 What I want to suggest, though, is
25 that when you look at the reds and the greens,

1 what it does is it gives you a clear picture that
2 there are very, two very different constituencies
3 that have two very different views of what's a
4 better route. I think it's fair to say that the
5 First Nations and Metis community would like to
6 see this route as far west as possible. It takes
7 it away from their areas that were very nicely
8 explained by the lady sitting where I am
9 yesterday, where there are areas of hunting and
10 gathering and areas of interest for a variety of
11 the normal purposes that those folks carry out
12 throughout their year. Unbroken lands, certainly
13 better.

14 But if we flip the issue over, we've
15 got the same types of concerns, meaning
16 interference with use, interference with enjoyment
17 by the private landowners on the most westerly
18 route. So what you're faced with here is two
19 constituencies that have diametrically competing
20 interests that really need to be sorted out, and
21 really need to be evaluated and really need to be
22 balanced, in my view.

23 You could say that they are both
24 NIMBYs, they are both not in my backyard, and both
25 of those are legitimate points of view. A lot of

1 times the term NIMBY is used in a pejorative sense
2 that says, well, that's not a very fair way to
3 look at it. But everybody has to look at this
4 from their own perspective.

5 So what I would like to suggest to the
6 panel is that when we go back to look at the route
7 alternatives that exist -- Mr. Toyne, would you
8 put up map 5-18 for me, please? We had it up
9 there once, it's a couple back.

10 Mr. Chairman, what I'm suggesting to
11 you is that I don't see the far easterly -- I
12 don't see the far easterly route as being the most
13 appropriate. I don't see the far westerly route
14 being the most appropriate. What I want to
15 suggest to you is that the AY route, which is in
16 the middle, has in fact a balance, a split the
17 difference, both geographically as well as
18 impacts, between First Nations concerns and
19 private landowners' concerns. What we're doing is
20 we're sharing the pain if we look at a route that
21 flows in that location.

22 The other thing that route does is it
23 picks up, in a fashion that's really from my point
24 of view very useful, because it picks up existing
25 linear disturbances.

1 There's two areas where there are
2 existing linear disturbances. On the east side of
3 the Watson Natural Wildlife area, there's a
4 railway track that this line on the AY routing
5 would carefully or closely track. And then
6 further north there's an existing power line where
7 the AY routing -- sorry, up here -- where the AY
8 routing would follow an existing power line.

9 The significance of that is that those
10 are good routing characteristics, following
11 existing linear disturbance. The impacts would be
12 split, if I could put it that way, between First
13 Nations' concerns and private landowners'
14 concerns, both of them would see some level of
15 impact but we wouldn't be dumping the full effect
16 on either one of those constituencies.

17 Mr. Chairman, all I can say to you is
18 that I think that's a rational consideration. I
19 think it's a potential recommendation that you
20 could make to the minister. You could approve the
21 ends, the timing of this project wouldn't be in
22 peril, but the impacts have the potential to be
23 greatly reduced on the private landowners, and to
24 take into account all those very important cross
25 Canada impacts, avoiding home sites, dozens and

1 dozens of home sites, if we were to use what I
2 would call an in between or a balanced route that
3 goes down through the middle of the two
4 alternative areas east and west.

5 I appreciate that that area would need
6 some additional study, it would need additional
7 public input. But I think given the time frames
8 that Mr. Toyne was able to determine in his
9 cross-examination, I think there's adequate time
10 to conduct that exercise and not jeopardize the
11 in-service dates that Manitoba Hydro has indicated
12 are in place.

13 With that, Mr. Chairman, I wrap up my
14 presentation and I say thank you for your time and
15 attention.

16 THE CHAIRMAN: Thank you, Mr. Berrien,
17 for a very thorough presentation. Mr. Toyne?

18 MR. TOYNE: All right. Thank you very
19 much, Mr. Chair. And Mr. Berrien, thank you very
20 much for that presentation. You very effectively
21 stole most of my thunder, so thank you. But if
22 you could turn to page 49 of your report? Just to
23 go back to something that you spoke about, just to
24 give a bit more detail for the benefit of the
25 Commission.

1 MR. BERRIEN: I have it.

2 MR. TOYNE: So in the second
3 paragraph, you had made brief reference to these
4 two projects where you had recommended some, but
5 not all of the proposed routes. And I'm wondering
6 if you can take a minute or two to provide a
7 little bit more detail about each of those
8 projects and why it was that you were making those
9 specific recommendations that were ultimately
10 accepted by the regulator?

11 MR. BERRIEN: Certainly. The pipeline
12 recommendation was to the Alberta Energy
13 Regulator, it concerned the Grand Rapids pipeline.
14 And the area of concern was where they decided in
15 their routing to go through the Town of Fort
16 Saskatchewan, City of Fort Saskatchewan on the
17 east side and actually run the line through urban
18 lands. There was an existing pipeline on an area
19 a couple miles to the west that they had, quite
20 frankly, dismissed on the basis of a desk top
21 analysis. I went out there and actually reviewed
22 the line myself, on the ground, and with the use
23 of a drone, a video.

24 On the basis of that review, I
25 suggested to the panel that there was a much lower

1 impact available on the west side. The panel
2 agreed with me. But because in Alberta you don't
3 get a line approved unless you apply for it, and
4 they indeed had not applied for it, the panel
5 said, okay, you can build the ends of that line,
6 but this stretch, you're going to have to go back
7 and you must do a further review of that and
8 present it to the panel.

9 The other one was to the Alberta
10 Utilities Commission, and what it was, was
11 replacement of a, I think it was a 138 line -- no
12 it wasn't, it was a 230 line that went from
13 Pincher Creek up to the substation around High
14 River. And when it went by the Town of
15 Claresholm, they departed from an existing linear
16 disturbance where there was another power line
17 already in place. They went out and looped around
18 the east side of the Town of Claresholm.

19 I said, well, that doesn't make any
20 sense, it should follow the existing linear
21 disturbance. You're going to take down the old
22 line and put up a new one. It doesn't make any
23 sense to go there. And the panel agreed with me
24 to the point where they said, well, we need to
25 know a lot more about why you're running this line

1 on a brand new right-of-way instead of following
2 the existing line. We give you approval to build
3 the line up to the Town of Claresholm, and then
4 from the north, but you're going to have to
5 re-evaluate and come back to us and provide us
6 with more information on this segment. That's the
7 details.

8 MR. TOYNE: All right. Thank you.
9 You also just made reference to a desk top
10 analysis versus actually taking a look at the
11 routes. Did you have a chance to take a look at
12 any of the routes that you've talked about today?

13 MR. BERRIEN: Yes. You and I drove
14 those routes. It's a poor way of looking at
15 routes in this type of country where there's few
16 roads and very heavy vegetation, so we chartered a
17 helicopter. Manitoba Hydro was kind enough to
18 provide us with a GPS, so we were able to follow
19 the route quite precisely. And then on the return
20 route, we followed the AY alternative because,
21 again, it's fairly easy to pick out. We've got a
22 railroad track, we've got an existing power line
23 and we have, you know, very clear markers as to
24 where that routing would be. So those things --
25 and by the way, you may recall, Mr. Toyne, I

1 didn't write my final conclusion until I saw it.
2 This report, because of my own retirement and
3 locational challenges, was deferred until the last
4 week of April, first week of May, when I had a
5 chance to actually get out there and see this,
6 because I wasn't going to write it until I saw it.
7 So what you're hearing from me actually has eyes
8 on the ground, and the recommendation for the AY
9 is based largely on it.

10 Originally, I was thinking we should
11 try to get it over even further to the east. But
12 after seeing the ground and seeing the sites, the
13 AY recommended itself to me, and that's the reason
14 that I have put it forth here for further
15 consideration.

16 MR. TOYNE: Earlier when you talked
17 about your reference to put the red-green chart
18 together, you had made reference to the five First
19 Nations and Metis criteria and where you obtained
20 some of that information from. And the note I
21 took was that that was a beginning or a start.
22 Can you explain to the panel how that red-green
23 chart could take into account either additional
24 criteria or additional data that may currently
25 exist, or that could exist if further study and

1 research is done?

2 MR. BERRIEN: Well, I'm pretty sure
3 that there's additional data right now. I may not
4 have seen it all. It may be contained in the
5 reports of some other consultants that I haven't
6 had a chance to review. But to the extent that
7 before the panel makes a decision on this, it
8 needs to have as much information as it can on
9 valued components, or important criteria from all
10 constituencies. I think it's fair to say that the
11 Manitoba Hydro studies that we have in front of
12 us, and the statistics largely deal with the
13 preferred route, because that's what they're
14 trying to sell.

15 When the alternative routes come into
16 play, though, there's different criteria that need
17 to be considered. Remember what I said, we always
18 have to judge these things based on where we go
19 and the lands we're going through. So I think
20 that there's clearly more material available right
21 now. Like I said, I didn't find it, but there
22 would be certainly even more available if the AY
23 was put through the proper vetting procedures, and
24 quantitative data was available from that to the
25 extent that it could be gleaned.

1 MR. TOYNE: One of the concepts that
2 you discussed during your presentation was home
3 sites newly exposed, as distinguished from home
4 sites previously exposed. Could you just talk a
5 little bit more about that for a moment?

6 MR. BERRIEN: That is -- and I don't
7 have any problem saying that I invented that
8 characteristic or that criteria as a better way to
9 look at the incremental impacts visually of
10 following existing power line versus putting a
11 power line in a green field area where there was
12 none before.

13 The issue of visual impact could take
14 on a very significant role in some of these
15 hearings. The board has clearly indicated that
16 incremental impacts are to be preferred over new
17 impacts, but they had no way of measuring that.
18 So I went out and actually started to count home
19 sites that are either screened by an existing
20 power line. In other words, if you have a power
21 line on the west and a home is on the west, and
22 you put up a new power line on the east, the
23 easterly new power line is screened by the
24 existing west power line. So that's home site
25 previously exposed. To say what would happen if

1 the new line is put on the east side and the home
2 site is on the east side, you would be looking at
3 a new line, but there is an existing line right
4 behind it. So those are previously exposed. Home
5 sites newly exposed is self-explanatory, no power
6 lines. The board clearly says that those are
7 incremental impacts when you have a previously
8 exposed one. And when you provide quantitative
9 data like how many houses, that gave the board the
10 capacity to form an opinion on the impacts,
11 because now they could see the numbers that were,
12 in fact, impacted that way. So that's the
13 explanation there.

14 MR. TOYNE: Mr. Chair, I have asked
15 this once or twice before during the hearing, so
16 I'll ask again, if you can just give me a moment
17 to just briefly consult with the members of the
18 Coalition that are here to make sure that I don't
19 have any further questions for Mr. Berrien, I'll
20 be brief, I'll appreciate it.

21 THE CHAIRMAN: Yes, that's fine.

22 MR. TOYNE: Thank you.

23 Mr. Chair, subject to anything that
24 might arise during the rest of the questioning
25 later today, I don't have any further questions at

1 this point for Mr. Berrien. Thank you very much.

2 THE CHAIRMAN: Okay. Thank you for
3 your questions.

4 Manitoba Hydro, it's 12:10, so we can
5 start and you can do 20 minutes of questioning.
6 Is that okay with you then?

7 MR. HUNTER: Mr. Chairman, my name is
8 Brenden Hunter, I'm with the law firm of Fasken
9 and Martineau, and I'll be asking the questions of
10 Mr. Berrien today. And I'm in your hands, we can
11 either start now and break at the usual time or
12 come back.

13 THE CHAIRMAN: Well, if it works for
14 you, we'll do 20 minutes worth now.

15 MR. HUNTER: Yes, that's amenable,
16 sir.

17 THE CHAIRMAN: Okay, thanks.

18 MR. HUNTER: Good afternoon,
19 Mr. Berrien.

20 MR. BERRIEN: Good afternoon, sir.

21 MR. HUNTER: Sir, I'm going to be
22 referring to a number of materials that are
23 already on the record. You may not have them in
24 front of you. If you'd like, we have brought
25 copies, so if you want the opportunity to view any

1 of them, we'll pass out copies to both you and the
2 Commission.

3 MR. BERRIEN: Thank you.

4 MR. HUNTER: Now, I'd like to first
5 visit, sir, what I'm going to call the
6 non-contentious portions of the routing. And you
7 have identified two segments that you have said
8 you don't have a significant problem with;
9 correct?

10 MR. BERRIEN: Right.

11 MR. HUNTER: And that first segment,
12 sir, is the southern loop transmission corridor;
13 correct?

14 MR. BERRIEN: Correct.

15 MR. HUNTER: You flag that as being an
16 18.5 length?

17 MR. BERRIEN: I think the 18.5 refers
18 to the western portion of that. I don't think
19 that's the whole leg. The whole leg goes all the
20 way around the south side and partially to the
21 north on the east side.

22 MR. HUNTER: Yes, that's exactly what
23 I wanted to clarify with you, sir. My
24 understanding of the distance of the final
25 preferred route between Dorsey and Anola, the

1 point where the route heads to the south along the
2 SIL component, that would be about 92 kilometres
3 in length. Does that sound about right to you?

4 MR. BERRIEN: It does indeed. And
5 that's the part I have no difficulty with.

6 MR. HUNTER: Okay. And then the
7 southern corridor are the southern portions, sir,
8 where AY has the junction with the final preferred
9 route to the border, I am told that that length of
10 the segment, the length of that segment of
11 transmission line is about 32 kilometres. Does
12 that sound about right?

13 MR. BERRIEN: It would. I have not
14 seen that specific number because it was never a
15 basis for any evaluation, but that sounds
16 reasonable.

17 MR. HUNTER: So it's fair to say, sir,
18 and I think that you were pretty clear in your
19 comments this morning, that your area of focus was
20 between Vivian and that junction we just referred
21 to, correct?

22 MR. BERRIEN: Correct.

23 MR. HUNTER: I'm going to start first,
24 Mr. Berrien, with consultation principles. And I
25 know this has been talked about extensively in

1 previous proceedings that you have been involved
2 with. You'd agree, sir, that landowner input is
3 an essential ingredient in a transmission line
4 routing exercise; correct?

5 MR. BERRIEN: Yes. And I think I said
6 so many number of times up here that I think it
7 should be taken into account, but I don't think it
8 was as well as it should have been. But, yes, I
9 agree completely with that proposition.

10 MR. HUNTER: You'd agree, sir, that a
11 route planner can and does obtain valuable
12 information about impacts from landowners?

13 MR. BERRIEN: Absolutely, yes.

14 MR. HUNTER: Sir, how many landowners
15 did you consult on this project prior to
16 finalizing your report?

17 MR. BERRIEN: I met with the
18 representatives of the Southeast Coalition. There
19 would have been four of them at that meeting, but
20 I think they represented the views of any number
21 of others. But that would be the limit of my
22 consultation.

23 MR. HUNTER: And I'm not sure if you
24 have read the transcripts, sir, of the route
25 planning presentation that was undertaken by

1 Manitoba Hydro, but are you aware, sir, that there
2 are 126 private landowners that would be directly
3 affected by the final preferred route?

4 MR. BERRIEN: I am.

5 MR. HUNTER: And sir, I'd like to turn
6 now to indigenous consultation. Do you also hold
7 the view that engagement with indigenous groups
8 would be an essential ingredient to sound route
9 planning?

10 MR. BERRIEN: Legal and essential.

11 MR. HUNTER: In Manitoba, that would
12 be a major consideration; correct?

13 MR. BERRIEN: Yes, and that's why I
14 added it into my red-green evaluation.

15 MR. HUNTER: A transmission line route
16 planner can and would obtain valuable information
17 about impacts from indigenous groups; correct?

18 MR. BERRIEN: Asked and answered, yes.

19 MR. HUNTER: Now, in your presentation
20 and in your report, sir, you criticize the
21 features identified in Manitoba Hydro's Table 5-27
22 as it did not include the most basic elements of
23 First Nations' preferences or concerns; correct?

24 MR. BERRIEN: Table 5-27 was the one
25 where I went through the corrections. It was

1 Table 5-33, as indicated, I believe that's the
2 table that my red-green was based on. Let me
3 double-check that, please, I want to be accurate.
4 Sorry, 5-27, you were correct and I apologize.

5 MR. HUNTER: What I think I heard you
6 say this morning, sir, was that when you built in
7 elements for the First Nations' preferences or
8 concerns, you counted features from maps 11-4 and
9 11-5 of the EIS; is that correct?

10 MR. BERRIEN: Well, I counted from
11 11-3, 4 and 5. When I counted, when I say 11-3,
12 what I did is I took a measurement of what looked
13 to me to be the appropriate distances that were
14 traversed in the areas of concern. So there was a
15 numerical evaluation from each one of those maps.

16 MR. HUNTER: Okay. I have questions
17 about maps 11-4 and 11-5, sir.

18 MR. BERRIEN: Sure.

19 MR. HUNTER: Can we agree that 11-4
20 plotted plant harvesting sites of the Peguis First
21 Nation?

22 MR. BERRIEN: Yes.

23 MR. HUNTER: And you are aware, I take
24 it, sir, that Peguis First Nation is not the only
25 indigenous group with interest in the project

1 area?

2 MR. BERRIEN: Agreed.

3 MR. HUNTER: And map 11-5, sir, that
4 shows the hunting and trapping sites that were
5 plotted of the Peguis First Nation; correct?

6 MR. BERRIEN: Correct.

7 MR. HUNTER: And again, sir, Peguis
8 First Nation is not the only indigenous group with
9 interests in the area; correct?

10 MR. BERRIEN: Agreed.

11 MR. HUNTER: Mr. Berrien, have you
12 engaged with indigenous communities as part of
13 your transmission route planning work previously,
14 sir?

15 MR. BERRIEN: Only very marginally.

16 MR. HUNTER: How many times have you
17 engaged with indigenous groups to seek their input
18 prior to recommending a transmission line route?

19 MR. BERRIEN: The way you phrased the
20 question, none.

21 MR. HUNTER: You have never once
22 engaged with indigenous groups on your route
23 planning, sir?

24 MR. BERRIEN: Not the way you have
25 said relative to planning a route, no. But I have

1 had exposure to, in fact, I've been a consultant
2 to any number of Aboriginal groups. I did a great
3 deal of work for Federal Canada, for Indian and
4 Northern Affairs where impacts and evaluations
5 were part of the analysis. But relative to
6 planning a route, no, I haven't.

7 MR. HUNTER: Sir, my understanding was
8 that the Updike ATCO project that you were
9 involved with, one of the routes ran immediately
10 adjacent to the Horse Lakes Indian Reserve. Do
11 you recall that?

12 MR. BERRIEN: I do.

13 MR. HUNTER: You never had any
14 involvement with that particular First Nation,
15 sir?

16 MR. BERRIEN: I did not. The issue in
17 that particular hearing was a single landowner who
18 was objecting, and those were the concerns that we
19 were dealing with through the area of the route
20 that affected his land. He brought a routing
21 consultant in and was recommending that the route
22 be amended to go through the First Nations land.
23 I indicated I thought that was a poor choice.

24 MR. HUNTER: And you provided route
25 planning testimony in that case, sir, having not

1 sought the input from the First Nation; correct?

2 MR. BERRIEN: Correct.

3 MR. HUNTER: Now, Mr. Berrien, there
4 is no mention of indigenous communities anywhere
5 in your report until page 53 of your 59 page
6 report; correct?

7 MR. BERRIEN: Correct.

8 MR. HUNTER: And there's no mention of
9 First Nation engagement as part of your general
10 discussion of route criteria elsewhere in Canada;
11 correct?

12 MR. BERRIEN: That is correct. And in
13 fact, I noted that the concerns that are
14 applicable to First Nations are much more elevated
15 in Manitoba than they are in most of the other
16 situations I have dealt with. Not to be ignored
17 or said that they are not present in places like
18 Alberta or Saskatchewan, but they raise to a
19 higher level of importance in Manitoba. That's
20 why I thought the absence of them, as I was going
21 through the Manitoba Hydro process, was notable.
22 That's why I added it in.

23 MR. HUNTER: Once you got to page 53
24 of your report?

25 MR. BERRIEN: Where it was the

1 appropriate place to put it in. Because you will
2 recall that earlier in my report I was dealing
3 with the Manitoba Hydro process, where it wasn't
4 found either.

5 MR. HUNTER: And there's no mention of
6 Metis engagement as part of your general
7 discussion of route criteria elsewhere in Canada;
8 correct?

9 MR. BERRIEN: Correct.

10 MR. HUNTER: And there's no mention of
11 engagement with other indigenous communities as
12 part of your general discussion of route criteria
13 elsewhere in Canada, correct?

14 MR. BERRIEN: Correct.

15 MR. HUNTER: And when you compiled, at
16 page 54 of your report, your summary table, sir,
17 you added five features that you say capture at
18 least the most basic elements of First Nations
19 preferences for concerns; correct? The statement
20 may have been on page 53 of your report.

21 MR. BERRIEN: I am just reviewing it
22 to make sure that I've got the wording right. I
23 said that they were not -- the list was not
24 complete enough. It occurred to me that the
25 features list was not complete enough to capture

1 at least the most basic elements of First Nations'
2 preferences or concerns. So let's be clear that
3 the phrase or the quote you just used was in
4 relation to Manitoba Hydro's list, not my list.
5 And what I further said was, I am sure that that
6 material that I have provided is only a shadow of
7 the overall concerns. So let's make sure we get
8 the proper evidence.

9 MR. HUNTER: Okay. Would you say that
10 the five features you have added, sir, capture at
11 least the most basic elements of First Nation
12 preferences or concerns?

13 MR. BERRIEN: No. What I said, and I
14 just quoted to you, that they are only a shadow of
15 the concerns that they have. But I also explained
16 to you in my presentation that these were the only
17 numbers I could find, that I could put into a
18 thing like this, that was available in the review
19 that I did. And I also indicated to Mr. Toyne
20 that there's much more that could be gathered, but
21 that's not my job, that's yours.

22 MR. HUNTER: Your evidence today is
23 that the five features that you have identified
24 capture a shadow of those concerns?

25 MR. BERRIEN: They are a shadow

1 because they are just touching the issues. And as
2 you pointed out accurately, and I thank you for
3 the clarification, this is just Peguis. There's
4 all those other communities that you referred to
5 in your question and they, of course, need their
6 inputs as well.

7 MR. HUNTER: Right. And these
8 features that you have added, you developed those
9 without having spoken to any First Nations in
10 Manitoba; correct?

11 MR. BERRIEN: We have answered that
12 one before. The answer is I didn't talk to
13 anybody.

14 MR. HUNTER: My question, sir, is
15 specific to this table and I haven't asked that
16 question yet.

17 MR. BERRIEN: And the answer is no, I
18 didn't talk to anybody.

19 MR. HUNTER: So you haven't talked to
20 MMF or other Metis groups; correct?

21 MR. BERRIEN: Correct.

22 MR. HUNTER: And you haven't spoken to
23 any other indigenous groups in developing this
24 table; correct?

25 MR. BERRIEN: Correct.

1 MR. HUNTER: Now, I want to talk about
2 consultation with the Peguis First Nation
3 specifically, Mr. Berrien. At page 56 of your
4 report, your summary indicates that except for
5 plant gathering, the AY route has the lowest
6 impacts. Correct?

7 MR. BERRIEN: Well, the quote is:
8 "Except for plant gathering, the AY
9 route has the lowest impacts according
10 to the numbers that show up in my
11 chart."

12 That's all I'm doing, is making a declarative
13 statement.

14 MR. HUNTER: Are you aware that the
15 Peguis First Nation is the largest First Nation
16 community in Manitoba?

17 MR. BERRIEN: No, I was not.

18 MR. HUNTER: Have you had an
19 opportunity, sir, to review the transcripts of the
20 evidence given by the Peguis First Nation
21 representatives in this hearing?

22 MR. BERRIEN: No, I have not.

23 MR. HUNTER: Mr. Mike Sutherland is
24 the Director of Consultation of Special Projects
25 for the Peguis First Nation. Were you aware of

1 that?

2 MR. BERRIEN: No.

3 MR. HUNTER: Are you aware, sir, that
4 Peguis First Nation has indicated that its people
5 are comfortable with the final preferred route?

6 MR. BERRIEN: I'm sure they are. It's
7 out of their backyard as far as it could go. I'm
8 not surprised at that at all.

9 MR. HUNTER: Are you aware that Peguis
10 First Nation indicated that people in the
11 community have stated that they would not support
12 a route such as AY, that passes to the east of the
13 Watson Wildlife Management Area?

14 MR. BERRIEN: I actually did hear that
15 some place, but I can't tell you where. Maybe it
16 was in consultation with Mr. Toyne, but I had
17 heard that, yes.

18 MR. HUNTER: Are you aware,
19 Mr. Berrien, that Mr. Mike Sutherland went on to
20 say that the AY route would go right into some of
21 the heaviest used portions of the project area in
22 the southeast corner of Manitoba?

23 MR. BERRIEN: I don't know where he's
24 talking about exactly. Is it in the portion that
25 I said it was okay, south of the junction point of

1 AY with the preferred route? You'll have to be a
2 little more specific with the question.

3 MR. HUNTER: Would you like me to read
4 from the transcript, sir?

5 MR. BERRIEN: Sure, go ahead.
6 Remember, AY goes all the way down to the border.

7 MR. HUNTER: Would you like a moment
8 to review that, Mr. Berrien?

9 MR. BERRIEN: Just focus me on the
10 area you want me to review.

11 MR. HUNTER: Okay. I'm going to start
12 at line 19 of page 2591. And Mr. Toyne says:

13 "And the specific route that the
14 Coalition will be suggesting is, at
15 least at the Round 2 level, Route AY."

16 Do you see that?

17 MR. BERRIEN: Yes.

18 MR. HUNTER: And then if I can take
19 you to page 2593.

20 MR. BERRIEN: I have it.

21 MR. HUNTER: Starting at line 12.

22 MR. BERRIEN: Okay.

23 MR. HUNTER: And this is the testimony
24 of Mr. Mike Sutherland.

25 "And as we've been going through this

1 process for the last two years, I
2 guess, we have had numerous meetings
3 and we went through the consultation.
4 We looked at selected routes and so on
5 and so forth. The further this is out
6 of the Sandilands, Watson Forest and
7 so on, out of that heavily used area,
8 the more satisfied our people are
9 going to be."

10 Do you see that?

11 MR. BERRIEN: Yes.

12 MR. HUNTER: And then if we go to the
13 next page on line 17, sir.

14 MR. BERRIEN: Yes.

15 MR. HUNTER: "So if you take a look
16 at the map that Jared showed you and
17 the route that you are looking at
18 moving it to, that would go right into
19 some of the heaviest-used portions of
20 that area. So that -- no, I don't
21 think that we'll be able to make any
22 changes in moving it there, or
23 compromises."

24 Do you see that?

25 MR. BERRIEN: Yes, I do.

1 MR. HUNTER: So back to my question,
2 Mr. Berrien. You are aware now that Mr. Mike
3 Sutherland said that the AY route would go right
4 into some of the heaviest used portions of the
5 project area in the southeast corner of Manitoba?

6 MR. BERRIEN: Yes, I see that.

7 MR. HUNTER: Are you aware that along
8 the northerly portion of the AY route, Peguis
9 First Nation indicated that there is extensive
10 heavy use of the area by its members?

11 MR. BERRIEN: I'm sure you're going to
12 show me somewhere else in this transcript that it
13 says that. I guess my only question is why it
14 doesn't show up in maps 11-5 or 11-4?

15 MR. HUNTER: Well, let's go to the
16 evidence on the record, sir.

17 MR. BERRIEN: Just remember, these
18 maps are on the record too, so let's not forget
19 that.

20 MR. HUNTER: Page 2596 of the
21 transcript, sir.

22 MR. BERRIEN: Yes, I have it.

23 MR. HUNTER: At the very top,
24 Mr. Toyne asks:

25 "Are there concerns in the more

1 northerly part of that proposed
2 Route AY, so in the Vivian and Ross
3 area? Or would the concerns primarily
4 be to the east of the wildlife
5 management area between that and the
6 ecological reserve?"

7 And then down to Mr. Mike Sutherland's sworn
8 testimony:

9 "Even though what we show there is,
10 like Jared said, close to the project
11 area, there's still extensive use land
12 east of where you see the dots there
13 now, which include the northern part
14 of that selected route. So it is
15 still heavily used, yeah, throughout
16 the whole region."

17 Do you see that, sir?

18 MR. BERRIEN: Yes.

19 MR. HUNTER: Mr. Berrien, you have no
20 basis to dispute the evidence of the Peguis First
21 Nation, do you?

22 MR. BERRIEN: Obviously not.

23 MR. HUNTER: Mr. Chairman, that
24 concludes this line of cross. This would be an
25 appropriate time to stop.

1 THE CHAIRMAN: That's good. So we'll
2 be back here at 1:30. Thank you.

3 (Proceedings recessed at 12:32 p.m.
4 and reconvened at 1:30 p.m.)

5 THE CHAIRMAN: All right. Welcome
6 back after lunch, everyone. And we will continue
7 the questioning, then, of Mr. Berrien, from
8 Manitoba Hydro.

9 MR. HUNTER: Thank you, Mr. Chairman.
10 Mr. Berrien, I wanted to quickly first
11 just go back to a table that you had referred to
12 in your presentation this morning, which is an
13 excerpt from page 5-118.

14 MR. BERRIEN: I have it.

15 MR. HUNTER: And I think your
16 criticism of Manitoba Hydro, if I understood it
17 correctly, sir, is that Manitoba Hydro gave the
18 BMY a "1" rating from a community perspective,
19 even though the two perspectives cancelled one
20 another out. And you had mentioned that Route BMY
21 ranks highest from the First Nation/Metis
22 engagement program perspective, and you indicated
23 that Route BMY does not address the town of
24 La Broquerie. If I've butchered that --

25 MR. BERRIEN: Yeah, you did.

1 MR. HUNTER: To the extent, sir, that
2 this exhibit isn't being entered in, I guess it is
3 on the record already. But you stopped there,
4 sir, and I'm wondering if you would acknowledge
5 that that paragraph goes on to list a number of
6 other concerns that were accommodated by the BMY
7 route. The full paragraph says:

8 "Does not address the town's concerns,
9 but accommodates concerns heard from private
10 landowners and livestock operators located within
11 the RM of La Broquerie and the RM of Stuartburn,
12 highlights Maple Leaf recreational land, Sundown
13 Cemetery, and the land of a private property owner
14 that is of importance to members of the Roseau
15 River Anishinabe First Nation. Route BOB
16 accommodates the concerns regarding the land of a
17 private property owner that is of importance to
18 members of the Roseau River Anishinabe First
19 Nation."

20 That's the complete paragraph;
21 correct, sir?

22 MR. BERRIEN: Yes, it is sitting there
23 for all to read.

24 MR. HUNTER: I want to turn next, sir,
25 to your criticism on page 32 of your report. And

1 you referred to it again this morning. You summed
2 up your criticism of the EPRI-GTC model by
3 indicating that computers and algorithms are
4 utilized to generate routes. Correct?

5 MR. BERRIEN: Are we talking about
6 what is on page 32, or something else? I just
7 want to make sure I'm with you on terms of where
8 you are going.

9 MR. HUNTER: Page 32 of your report.

10 MR. BERRIEN: Are we talking about the
11 last paragraph of the page?

12 MR. HUNTER: It starts: "The use of
13 algorithms and computers to process information
14 and to generate recommendations and routes."

15 Do you see that?

16 MR. BERRIEN: Yes, that's -- I just
17 want to make sure I'm with you. Good, yes.

18 MR. HUNTER: And on page 39 of your
19 report, you go on to describe them as
20 machine-planned routes; correct?

21 MR. BERRIEN: Again, take me to the
22 paragraph so I can follow you, please, on 39.

23 MR. HUNTER: The paragraph starts with
24 "The significance of this decision to discard the
25 eastern routes."

1 It is the very last paragraph.

2 MR. BERRIEN: Thank you. Now I'm just
3 going to review it.

4 Yeah. Actually I didn't discuss the
5 figure in 5-10, but that's what it says in terms
6 of -- it talks about a machine-generated route,
7 yes.

8 MR. HUNTER: And the sentence reads:

9 "In reality, it displays in the
10 clearest possible way the fallacy of a
11 machine-planned route."

12 Do you see that?

13 MR. BERRIEN: I see that.

14 MR. HUNTER: Mr. Berrien, you didn't
15 understand when you wrote your report that the
16 EPRI computer model wasn't utilized to draw the
17 routes. Correct?

18 MR. BERRIEN: I saw that in the EIS,
19 they talked about drawing the routes. "Drawing
20 the routes" isn't perfectly clear, but I think the
21 implication is that the guidance on where to draw
22 the lines, which were done by human beings, was
23 provided by the route analysis tables and
24 evaluations that are in the EIS. If it isn't,
25 then I think we are all sadly misunderstanding the

1 process.

2 So people drew the lines, but they
3 were guided by your evaluation, is my
4 understanding.

5 MR. HUNTER: Did you review Manitoba
6 Hydro's response to Commission IR 71, sir?

7 MR. BERRIEN: I probably did, but I
8 certainly don't remember it by that
9 identification.

10 MR. HUNTER: Would you like to take a
11 look and refresh your memory?

12 MR. BERRIEN: That would be the
13 obvious thing to do.

14 Mr. Chairman, while he is digging that
15 out, because there has been a specific reference
16 to a page -- an illustration in the EIS, do you
17 folks have access to that document so that you
18 could in fact see what I was looking at?

19 THE CHAIRMAN: If you are asking
20 whether we have it with us right here at the
21 table, no. We are noting, and we will check those
22 references after, of course, but we don't have it
23 here with us.

24 MR. BERRIEN: And that's fine, as long
25 as it is available to you. You can see what my

1 concern was. I just want you to be able to
2 visualize what I'm referring to.

3 THE CHAIRMAN: Oh, yes, we will be
4 able to do that.

5 MR. BERRIEN: Thank you.

6 What would you like me to look at,
7 sir?

8 MR. HUNTER: I'm looking at page 3 of
9 that response, sir, under the heading "Alternate
10 Route Development".

11 MR. BERRIEN: All right.

12 MR. HUNTER: And the first three lines
13 in the first paragraph, sir, states:

14 " With siting principles and alternate
15 corridors established through the EPRI-GTC siting
16 process described in chapter 5 of the EIS, the
17 next step for the Manitoba Hydro routing team was
18 to develop alternate routes within the alternate
19 corridors, to the extent possible."

20 Do you see that?

21 MR. BERRIEN: Yes.

22 MR. HUNTER: Then at the beginning of
23 the next paragraph, sir:

24 "The routing team worked
25 collaboratively to develop a series of alternate

1 route segments, based on a variety of
2 considerations and concerns specific to the
3 different disciplines involved related to
4 potential impacts and associated layers of
5 geospatial data."

6 Do you see that?

7 MR. BERRIEN: Yes.

8 MR. HUNTER: And then the beginning of
9 the next paragraph, sir:

10 "Once the initial network of
11 interconnected alternate route
12 segments were identified by the
13 routing team within the established
14 corridors, areas of higher potential
15 levels of impact and constraints were
16 re-evaluated to confirm if there may
17 be additional alternate route segment
18 scenarios that may provide further
19 opportunities to consider. This
20 included re-evaluating potential areas
21 that, while outside the established
22 corridors, provided potential
23 alternative locations where
24 alternative route segments could be
25 identified, using the same suite of

1 considerations for route segments
2 within the corridors."

3 Do you see that?

4 MR. BERRIEN: I do.

5 MR. HUNTER: Then at the beginning of
6 the next paragraph:

7 "A comparative vetting process was
8 then employed by the routing team to
9 reassess the alternate route segments
10 posing higher levels of potential
11 impacts, and to further refine the
12 network of alternate route segments to
13 those posing lower levels of potential
14 overall impacts."

15 Do you see that?

16 MR. BERRIEN: Yes.

17 MR. HUNTER: Sir, the IR response
18 confirms that the alternate routes were developed,
19 vetted, and reassessed by the Manitoba Hydro
20 routing team. Correct?

21 MR. BERRIEN: Yes. But the point I'm
22 making in the area that you quoted was that the
23 machine -- what I'm calling the machine-generated
24 routes needed to be vetted and needed to be
25 changed and improved to minimize impacts that

1 arose from the process that was used to generate
2 those original routes.

3 I'm not saying that you didn't go back
4 and find ways to make the impacts less. But one
5 of the things that struck me is that when I saw
6 this particular example that I cited here, where
7 within a space of two miles, the Trans-Canada
8 Highway was crossed twice by the same line, and
9 then within proximity of home sites, it struck me
10 that -- how could a line or a route like that be
11 considered a reasonable routing choice, regardless
12 of how it happened?

13 In this case I believed it was done by
14 the machine, and needed people to go back -- and
15 in fact it was the landowners that suggested to
16 Manitoba Hydro that they change it, and they
17 agreed.

18 That's what the point of that
19 particular discussion is. Not that these factors
20 that are in this report or IR response didn't
21 happen; it is how they came to happen.

22 MR. HUNTER: The response doesn't say
23 that the machine drew the routes, does it, sir?

24 MR. BERRIEN: The machine doesn't draw
25 anything. The machine points out in areas, and if

1 you go back and look at the EPRI-GTC model, what
2 it does is it shows you a least-cost route, by
3 virtue of a series of polygons, that have the
4 lowest cost. And I put that in air quotes,
5 because cost is the lowest impacts as identified
6 by the algorithm, based on the criteria and the
7 weighting.

8 That led to the original line -- drawn
9 by a human being, but he put it where those
10 algorithms indicated would be the least impact.

11 And if that isn't the process, then I
12 misunderstood it.

13 MR. HUNTER: And I believe you
14 confirmed already, Mr. Berrien, that you did read
15 the transcript of Manitoba Hydro's presentation of
16 their route planning. Correct?

17 MR. BERRIEN: The route planning one,
18 yes. I mean, I don't remember it to any high
19 degree, but I did read it.

20 MR. HUNTER: In that presentation,
21 Ms. Bratland confirmed that comparative evaluation
22 tools were used to make decisions, not develop
23 routes. Do you recall that?

24 MR. BERRIEN: I don't recall that
25 specific line, but if you tell me that's what she

1 said, I will accept it at face value.

2 MR. HUNTER: I would like to go to
3 Appendix 17A of your report, sir.

4 MR. BERRIEN: It is in the Appendix
5 section? Yes.

6 I have it.

7 MR. HUNTER: And I'm looking at the
8 first page, under the heading "The OH/CIA Study
9 Method". Do you see that?

10 MR. BERRIEN: I see it.

11 MR. HUNTER: This paragraph says that
12 Ontario Hydro had previous experience utilizing a
13 computer technique for transmission corridor
14 selection. Correct?

15 MR. BERRIEN: I need to find out where
16 you are saying that.

17 MR. HUNTER: Second sentence, sir:
18 "Having had previous experience with a
19 computer technique for transmission
20 corridor selection."

21 Do you see that?

22 MR. BERRIEN: No, but I'm looking for
23 it. I'm sorry. I don't mean to be obstreperous,
24 but I'm just not finding it.

25 MR. HUNTER: Are you under the heading

1 "The OH/CIA study method"?

2 MR. BERRIEN: Yes, and what -- is it
3 in the top paragraph of that?

4 MR. HUNTER: Second sentence after
5 that heading.

6 MR. BERRIEN: Thank you. Just give me
7 a second.

8 Ah, there it is. I got you now.
9 Thank you.

10 MR. HUNTER: It goes on to say that a
11 similar computer technique was utilized again.
12 Correct?

13 MR. BERRIEN: That's what it says,
14 yes.

15 MR. HUNTER: That's similar to the
16 EPRI model; correct?

17 MR. BERRIEN: I have no idea.

18 MR. HUNTER: The next paragraph goes
19 on to say:

20 "The method utilized two phases. The
21 first phase utilized the computer to select
22 corridors visually."

23 Do you see that?

24 MR. BERRIEN: Yes.

25 MR. HUNTER: And it says:

1 "The second phase of right-of-way
2 selection was done by more familiar
3 methods, by using maps, air photos,
4 and air reconnaissance."

5 Correct?

6 MR. BERRIEN: Correct.

7 MR. HUNTER: That's also similar to
8 the EPRI model, isn't it?

9 MR. BERRIEN: No, that's actually
10 similar to what the rest of Canada does. They
11 don't select a route using an algorithm and
12 weighting and criteria, and then do a
13 multiplication and then a ranking and a preference
14 determination.

15 This is the way it is typically done,
16 where you go out, you get maps, air photos, the
17 beginning and the end, and you start looking for
18 ways to connect A to B.

19 I don't see -- I don't see the
20 suggestion in that sentence that you are making,
21 sir.

22 MR. HUNTER: You don't think that
23 Manitoba Hydro used maps, air photos, to look at
24 getting from A to B, sir?

25 MR. BERRIEN: You said, Manitoba --

1 sorry, was it Ontario? Are we talking about
2 Manitoba Hydro? This is Ontario.

3 MR. HUNTER: Yes, and I asked you if
4 it was similar to the EPRI model.

5 MR. BERRIEN: The EPRI model gets you
6 least-cost corridors and prospective routes. It
7 then, as I understand it, sets out on a process of
8 studying those things more carefully. At that
9 point I would expect that yes, they would use maps
10 and air photos. Correct.

11 MR. HUNTER: Let's go through it one
12 by one, then, sir.

13 MR. BERRIEN: Okay.

14 MR. HUNTER: Do you believe that
15 Manitoba Hydro used maps as part of their route
16 selection?

17 MR. BERRIEN: Of course.

18 MR. HUNTER: Do you believe that they
19 used air photos as part of their route selection?

20 MR. BERRIEN: Yes.

21 MR. HUNTER: Do you believe that they
22 used ground reconnaissance as part of their route
23 selection?

24 MR. BERRIEN: Yes.

25 MR. HUNTER: And do you believe that

1 they used air reconnaissance as part of their
2 route selection?

3 MR. BERRIEN: I don't know the answer
4 to that one, but I would expect that they would.

5 MR. HUNTER: Now, if we could go to
6 page 33 of your report, sir.

7 You say that there is no basis
8 whatever for the Commission to conclude that
9 cloning the EG model will yield valid results in
10 Manitoba. Correct?

11 MR. BERRIEN: Give me that page number
12 again. I'm sorry, I just finished re-reading
13 that -- 17A. What was that page again, please?

14 MR. HUNTER: Thirty-three.

15 MR. BERRIEN: Thank you.

16 MR. HUNTER: Second-last paragraph.

17 MR. BERRIEN: Yes, that's without some
18 justification, no basis to assume that you
19 conclude that cloning the EG model would yield
20 valid results applicable in Manitoba.

21 That of course follows the preceding
22 quote, which talks about how we can specifically
23 amend the balance of one-third/one-third/one-third
24 to fit the criteria or the circumstances of the
25 given area where the route will be planned.

1 That's what that sentence is referencing.

2 MR. HUNTER: Were you aware when you
3 wrote this, sir, that Manitoba calibrated the
4 alternative corridor analysis to incorporate
5 features of Southern Manitoba?

6 MR. BERRIEN: Well, they say they did,
7 but when I asked them what the
8 one-third/one-third/one-third distribution,
9 whether they had considered amending it, they told
10 me "No." I mean, that was a specific reply to my
11 direct question. That's all I can work off of.

12 I don't know what else they talked
13 about in a different location, but when they tell
14 me an answer to my direct question, "No", I have
15 to assume that they are giving me the straight
16 goods.

17 MR. HUNTER: Have you read Appendix 5A
18 of chapter 5, sir?

19 MR. BERRIEN: Thoroughly.

20 MR. HUNTER: You are aware, then, that
21 it indicates that the engineering perspective was
22 changed to reflect a 500 kV line in southern
23 Manitoba?

24 MR. BERRIEN: Yes.

25 MR. HUNTER: And you're --

1 MR. BERRIEN: Engineering also changed
2 the setback requirement from ten kilometres to
3 something less. So there was a number of changes
4 as they went through.

5 MR. HUNTER: The built environment
6 perspective was also changed to reflect a 500 kV
7 line in southeastern Manitoba; correct?

8 MR. BERRIEN: Yes.

9 MR. HUNTER: And the natural
10 environment perspective was also changed to
11 reflect a 500 kV line in southeastern Manitoba;
12 correct?

13 MR. BERRIEN: Yes. The point that you
14 made -- without realizing it -- three times, is
15 that it was the change to 500 kV, not the issues
16 on the ground.

17 To the extent that 500 kV would
18 produce some different impact, if that actually
19 showed up in one of the criteria or the weighting,
20 I would be more impressed by that amendment. But
21 without some knowledge of that, or some indication
22 that it happened, I'm not sure that it means very
23 much.

24 MR. HUNTER: Have you read the
25 response to Commission IR 75, sir?

1 MR. BERRIEN: Probably, but you are
2 going to have to show it to me again. I don't
3 have it memorized.

4 Thank you. Give me a second to look
5 at it.

6 Okay.

7 MR. HUNTER: You are aware, I take it,
8 sir, that this isn't the first time that Manitoba
9 Hydro has utilized the EPRI model to site a
10 transmission line?

11 MR. BERRIEN: Yes, they used it once
12 before on a short line further north. I don't
13 remember the name of it, but they did.

14 MR. HUNTER: The St. Vital to
15 Letellier line, sir?

16 MR. BERRIEN: That rings a bell, yes.

17 Are we going to have any more
18 questions on 75 IR?

19 MR. HUNTER: I'm advised, sir, that
20 that was about a 75-kilometre length line. Do you
21 have any reason to disagree with that?

22 MR. BERRIEN: I have no reason to
23 disagree with you.

24 MR. HUNTER: And that was a 230 kV
25 line, sir?

1 MR. BERRIEN: Okay.

2 MR. HUNTER: Are you aware of that?

3 MR. BERRIEN: Yeah.

4 My recollection, too, is that there
5 was nothing like this process as a result of that
6 application, so I'm not sure that we can take a
7 great deal from that.

8 But the answer to your question is
9 yes, it was used previously on the line that you
10 described.

11 MR. HUNTER: And the response to this
12 IR to the Commission clarifies how Manitoba Hydro
13 recalibrated its process and models to reflect
14 this particular project, correct?

15 MR. BERRIEN: Yes, but let's be clear,
16 second page -- last page -- or line 39:

17 "These changes does not result in a
18 substantive effect on the modeling
19 process. The same analysis process
20 was used for both projects, standard
21 practice by users of EPRI-GTC
22 methodology, to make slight
23 adjustments to the model to
24 accommodate different types of
25 facilities."

1 I think that's where I was going with
2 my concern, that -- or my answer earlier to your
3 question is that there were amendments made, but I
4 suggested to you that I didn't see it was going to
5 make much difference. This seems to validate
6 that.

7 MR. HUNTER: I think what they were
8 trying to say, sir, is that the process generally
9 stayed the same, but the criteria and weighting
10 that they applied in the context of this project
11 did in fact change. Is that fair?

12 MR. BERRIEN: Marginally. That's
13 fair.

14 MR. HUNTER: Now, when you wrote your
15 report, sir, weren't you aware that the
16 alternative route evaluation model was also
17 calibrated from the St. Vital-to-Letellier project
18 to this project, to account for this project being
19 a 500 kV line?

20 MR. BERRIEN: I think your quote
21 indicated earlier that was so, and I recall
22 reading that somewhere.

23 MR. HUNTER: Did you read the response
24 No. 76 to the Commission's IRs?

25 MR. BERRIEN: Maybe next time you will

1 just give it to me, and we won't have to go
2 through the exercise. I probably read it, but I
3 would have to see it to know.

4 Thank you.

5 Yes, I remember specifically reading
6 this one, and I was -- I recall my reaction to it
7 was to see that -- I was distressed that the
8 "relocated residents" weight dropped from 43 to
9 27; "potentially relocated residents" was dropped
10 from 23 to 17. And this is in the face of a
11 bigger line. I remember this now, yes.

12 MR. HUNTER: Okay. It shows that the
13 criteria and the relative weights were calibrated
14 for the purposes of this project; correct?

15 MR. BERRIEN: Yes. I am not sure they
16 were done in a way that I would agree with, but
17 they were certainly changed.

18 MR. HUNTER: Let's go to again page 33
19 of your report, sir.

20 MR. BERRIEN: Yes.

21 MR. HUNTER: You say that Manitoba
22 Hydro only applied the
23 one-third/one-third/one-third simple average
24 perspective as part of the EPRI process. Was that
25 what you were trying to suggest?

1 MR. BERRIEN: Yes.

2 MR. HUNTER: You were aware, though,
3 sir, that under the alternative corridor analysis,
4 Manitoba Hydro also considered weighted natural
5 environment, built environment, and engineering
6 environment perspectives when it developed its
7 corridors?

8 MR. BERRIEN: Oh, yes. They did that
9 each time they went down the process.

10 MR. HUNTER: So if --

11 MR. BERRIEN: This is where -- if I
12 might just finish the answer.

13 I think some of my concern came in
14 that that isn't what the original EPRI did. The
15 Manitoba Hydro process did this preference
16 determination in each one of those steps. It
17 applied --

18 MR. HUNTER: I'm not -- sorry, sir,
19 I'm not talking about the preference determination
20 model; I'm talking about the development of the
21 alternative corridors.

22 MR. BERRIEN: But the development of
23 the alternative corridors and the weighting of
24 them, in my understanding, used the preference
25 determination to evaluate those routes.

1 If I'm wrong, you can correct me.

2 MR. HUNTER: I've passed up Map 59
3 from chapter 5. I take it you've seen that map
4 before, sir?

5 MR. BERRIEN: I have, yes.

6 MR. HUNTER: And you can see clearly
7 that four separate corridors were produced?

8 MR. BERRIEN: Yes. This was in the
9 effort to find a crossing point.

10 MR. HUNTER: And only one of those
11 four corridors is the simple average that you
12 would have used the weighting
13 one-third/one-third/one-third, sir?

14 MR. BERRIEN: That's where that math
15 is applied, yes.

16 MR. HUNTER: I want to go back to
17 page 5 of your report, sir.

18 You indicate that:

19 "For high voltage transmission line
20 route issues, we regularly review the
21 practices from other jurisdictions."

22 Correct?

23 MR. BERRIEN: The "we" being my
24 company, yes.

25 MR. HUNTER: You, sir?

1 MR. BERRIEN: Yes. Me. I am the only
2 person left in my company now.

3 MR. HUNTER: In addition to Alberta,
4 your report in this proceeding refers to the
5 practices in four other provinces: Quebec,
6 Ontario, Saskatchewan, and B.C. Correct?

7 MR. BERRIEN: Correct.

8 MR. HUNTER: Do you have personal
9 experience routing transmission lines in any of
10 the other provinces, sir?

11 MR. BERRIEN: No. I have experience
12 routing a pipeline in New Brunswick and Nova
13 Scotia, but not power lines.

14 MR. HUNTER: The Bipole III report was
15 the first of your reports I could find where you
16 summarized routing practices of other
17 jurisdictions outside of Alberta. You indicate in
18 the cover of your report that you were relying on
19 your summary of the Bipole III report for your
20 jurisdictional review. Correct?

21 MR. BERRIEN: That's -- I mean, there
22 was no point in rewriting all of the sections. So
23 the answer to that is yes.

24 MR. HUNTER: So it is nearly identical
25 to what you provided in Bipole III. Is that fair?

1 MR. BERRIEN: That's correct. I added
2 the more recent decisions that occurred since
3 Bipole in Alberta, but not in other provinces.

4 MR. HUNTER: Okay. Did you undertake
5 any additional research in the other provinces?

6 MR. BERRIEN: Actually, I did, but --
7 I just didn't come up with -- there might have
8 been others; that's how I found the Kentucky
9 stuff, for example, and how I found the stuff in
10 Minnesota. I was casting a broad net, but I
11 didn't find any other provincial decisions. I'm
12 not saying there aren't any, obviously; I just
13 didn't find them.

14 MR. HUNTER: The Bipole III report was
15 from 2012; correct?

16 MR. BERRIEN: '13. 2013.

17 MR. HUNTER: That may be when you
18 testified, but it was dated November 2012, was it
19 not, sir?

20 MR. BERRIEN: Fair enough. I was
21 talking about the decision, which --

22 MR. HUNTER: I asked you about the
23 report.

24 MR. BERRIEN: -- but you're quite
25 correct; let's -- let's not split hairs on it.

1 2012 and 2013, yes.

2 MR. HUNTER: In the report for this
3 proceeding, you have not included any new cases
4 from other jurisdictions within Canada for more
5 than four years, correct?

6 MR. BERRIEN: Except for Alberta.

7 MR. HUNTER: Now, you undertook your
8 research on the basis of an Internet search,
9 correct?

10 MR. BERRIEN: Yes, sir.

11 MR. HUNTER: And at page 55 of your
12 report, you indicate that home site features are
13 the number one priority issue across Canada.
14 Correct?

15 MR. BERRIEN: Yes.

16 MR. HUNTER: Let's start with Quebec,
17 sir. Did you research any French documents in
18 Quebec?

19 MR. BERRIEN: No.

20 MR. HUNTER: And you were fortunate to
21 find the document that you did, correct?

22 MR. BERRIEN: I believed I was, yes,
23 because it was -- what was interesting to me about
24 it was that it was an agreement between landowners
25 and Hydro Quebec. The Quebec Farmers Association.

1 To me, that was a very useful tool to guide what
2 the parties believed would be appropriate routing
3 criteria in that locality.

4 MR. HUNTER: And those are the words
5 you used in your report: "That was a very useful
6 document." Correct?

7 MR. BERRIEN: If I did, I didn't
8 realize it, but -- yes, I see that I did.

9 MR. HUNTER: And that document is
10 17 years old; correct?

11 MR. BERRIEN: Yes.

12 MR. HUNTER: It is an agreement.
13 Right?

14 MR. BERRIEN: I can -- I didn't --

15 MR. HUNTER: It's an agreement;
16 correct?

17 MR. BERRIEN: Yes, it is.

18 MR. HUNTER: And if we turn to page 23
19 of your report, sir, there is no reference to home
20 sites or residents in the list of factors.
21 Correct?

22 MR. BERRIEN: Not in that identifiable
23 name, but as I indicated in my testimony, existing
24 land uses in a number of jurisdictions clearly
25 indicates residential uses where appropriate.

1 MR. HUNTER: There is nothing
2 definitive in Quebec that says that home sites or
3 proximity to residents is the most important
4 factor; is there?

5 MR. BERRIEN: No. In fact, in Quebec,
6 it actually indicates that the criteria are not
7 listed in order of importance.

8 MR. HUNTER: It states that expressly,
9 doesn't it?

10 MR. BERRIEN: Yes.

11 MR. HUNTER: Then if we turn to
12 Ontario, you reference an older report, of the
13 Solandt Commission. Correct?

14 MR. BERRIEN: Yes.

15 MR. HUNTER: That report is now
16 42 years old?

17 MR. BERRIEN: Yes. 1975.

18 MR. HUNTER: And that project was for
19 a 500 kV line from Lennox to Oshawa, correct?

20 MR. BERRIEN: Correct.

21 MR. HUNTER: With respect to your
22 comment that home sites are the number one
23 priority issue across Canada, there is no
24 reference in the Solandt Commission list to home
25 sites or proximity to residents, is there, sir?

1 MR. BERRIEN: Well, in Solandt, what
2 it talks about is minimize conflict with existing
3 land uses. And as I indicated to you just a
4 moment ago, you can't read that and not think of
5 home sites -- at least I can't.

6 MR. HUNTER: There is no express
7 reference to home sites or residences, is there,
8 sir?

9 MR. BERRIEN: Correct.

10 MR. HUNTER: And there is no ranking
11 or priority applied, is there?

12 MR. BERRIEN: It is not -- there is no
13 expression that they are ranked by priority.

14 MR. HUNTER: And on page 24 of your
15 report, for the Bruce to Milton line, with respect
16 to your comment that home sites are the number one
17 priority issue across Canada, there was no
18 indication of priority between the criteria Hydro
19 One reviewed, correct?

20 MR. BERRIEN: Correct.

21 MR. HUNTER: The third Ontario project
22 that you looked at was the Essex County
23 Transmission Reinforcement. Correct?

24 MR. BERRIEN: That's right.

25 MR. HUNTER: And unlike every other

1 jurisdiction we've discussed outside of Alberta,
2 this is the first one to expressly mention
3 proximity to residential dwellings. Correct?

4 MR. BERRIEN: In your interpretation,
5 "expressly," correct.

6 MR. HUNTER: And there is no
7 indication that proximity to residential dwellings
8 was a more important criterion than the other two
9 criteria cited as being the most important, is
10 there?

11 MR. BERRIEN: Well, I guess it depends
12 on how you read it. When they indicate, as I
13 showed in the last paragraph, "as far as possible
14 from residences", that looks pretty important to
15 me, when you say "as possible".

16 I guess, to the extent -- if you are
17 looking for these folks to say, in each and every
18 case, avoiding home sites is the most important
19 criteria, you may not find that in those exact
20 words.

21 But then again, you are not a route
22 planner. To the extent you may or may not have a
23 full appreciation of what is important to
24 landowners, I think I have a better one. And I
25 think I can understand, when they say things like

1 this, what is important.

2 But to the extent that this is
3 expressly set out, no, not in every case. And
4 I've agreed with you every time you've asked me
5 that question.

6 MR. HUNTER: Now, on page 25 of your
7 report, you refer to a Saskatchewan Ministerial
8 approval where the potential effect on farming
9 operations was listed as the principle issue.
10 Correct?

11 MR. BERRIEN: That's right.

12 MR. HUNTER: And with respect to your
13 comment that home sites are the number one
14 priority issue across Canada, there is no
15 reference in the EIS or Saskatchewan Ministerial
16 approval to proximity to residences, is there?

17 MR. BERRIEN: Not in that case,
18 correct.

19 MR. HUNTER: Then if we turn to B.C.,
20 at page 25 of your report, you state that the only
21 information that you could locate that concerned
22 agricultural criteria was in the application for
23 the Vancouver Island Transmission Reinforcement,
24 correct?

25 MR. BERRIEN: Right.

1 MR. HUNTER: And with respect to your
2 comment that home sites are the number one
3 priority issue across Canada, in the factors that
4 you list, we don't see any reference to home sites
5 or proximity to residences. Correct?

6 MR. BERRIEN: The way you've posed the
7 question, correct.

8 MR. HUNTER: There is no reference to
9 any ranking in this list either, is there?

10 MR. BERRIEN: Which list?

11 MR. HUNTER: The B.C. list of
12 criteria.

13 MR. BERRIEN: No, there is not.

14 MR. HUNTER: Now, page 34 of your
15 report, you quote a Supreme Court of Canada
16 decision involving expropriation. I take it you
17 are not claiming any legal expertise, Mr. Berrien?

18 MR. BERRIEN: No, I don't think I was.

19 MR. HUNTER: And your --

20 MR. BERRIEN: But I think you can -- I
21 think you can read the plain words there in the
22 context of my concern, which is that Manitoba
23 Hydro chooses to expropriate because it is easier,
24 yet expropriation, as the Supreme Court says, is
25 the ultimate exercise of governmental power.

1 That's the point.

2 MR. HUNTER: You are not a lawyer, are
3 you, sir?

4 MR. BERRIEN: Thank goodness, no.

5 MR. HUNTER: And you are aware,
6 Mr Berrien, that First Nations, Metis, and other
7 indigenous groups hold constitutionally protected
8 rights that may be exercised on Crown lands?

9 MR. BERRIEN: I'm very aware of that.

10 MR. HUNTER: And your report, sir, is
11 it based on the assumption that Manitoba Hydro
12 effectively avoided Crown land completely?

13 MR. BERRIEN: No, they didn't avoid it
14 completely; but in their own words, they avoided
15 it where possible.

16 MR. HUNTER: Okay, so --

17 MR. BERRIEN: Because it was easier to
18 expropriate. I mean, I read the quote right out
19 of the EIS, so I don't have to guess.

20 MR. HUNTER: What you've stated on
21 page 34, then, is misleading, where you state:

22 "It appears they took this direction
23 to effectively avoid Crown land completely."

24 You'd agree that's a little
25 misleading? First line in the third paragraph.

1 MR. BERRIEN: That's probably
2 overstated. I agree with that. I should have
3 probably said, "Avoid Crown land wherever they
4 could", as opposed to "completely".

5 MR. HUNTER: You are aware, sir, that
6 the final preferred route crosses -- approximately
7 30 per cent of its length crosses Crown land?

8 MR. BERRIEN: Yes, I am.

9 MR. HUNTER: Now, you list a number of
10 Alberta projects where you have proposed Berrien
11 alternate routes, bars, to the Commission.
12 Correct?

13 MR. BERRIEN: Yes.

14 MR. HUNTER: I will refer to those the
15 same way as you: Bars.

16 MR. BERRIEN: Thank you.

17 MR. HUNTER: You refer to the
18 Heartland Project on page 22 of your report,
19 correct?

20 MR. BERRIEN: Yes.

21 MR. HUNTER: Now, on that project,
22 sir, I counted five bars on the preferred east
23 route and nine bars that you proposed on the west
24 route. Does that sound about right?

25 MR. BERRIEN: I can accept that, yes.

1 MR. HUNTER: And the Commission did
2 not require the applicants to go back and
3 reconsider any of those bars, did they?

4 MR. BERRIEN: No, they did not.

5 MR. HUNTER: And the Commission in
6 that proceeding found that landowner input was an
7 essential ingredient in routing a transmission
8 line. Correct?

9 MR. BERRIEN: We agree.

10 MR. HUNTER: And the Commission found
11 that the landowners that you were retained by did
12 not endorse your proposed bars; correct?

13 MR. BERRIEN: Correct.

14 MR. HUNTER: And on page 22 of your
15 report, you also refer to the Western Alberta
16 Transmission Line Project. Correct?

17 MR. BERRIEN: Page 22?

18 MR. HUNTER: Yep.

19 MR. BERRIEN: Oh, right there. It is,
20 yes. Um-hum.

21 MR. HUNTER: On that project, I
22 counted 11 bars on the preferred route and 20 on
23 the alternate route. Does that sound about right?

24 MR. BERRIEN: I can accept that.

25 MR. HUNTER: And the Commission did

1 not require the applicant to go back and
2 reconsider any of those bars, did it?

3 MR. BERRIEN: I'm just going on
4 memory, because this is a while ago, but I thought
5 there was actually one or two of those that the
6 proponent amended their application to consider
7 and adopt my bars.

8 But the Commission didn't require
9 them, which is the essence of your question. So I
10 would have to say they did not change or accept
11 any of them.

12 MR. HUNTER: And on page 22 of your
13 report, you also refer to the 2016 Alberta
14 PowerLine application. That's the Fort McMurray
15 500 kV line. Correct?

16 MR. BERRIEN: That's right.

17 MR. HUNTER: In that project, you
18 proposed eight bars. Correct.

19 MR. BERRIEN: They were on the eastern
20 route, which the Commission did not approve, so I
21 think it is redundant -- or they never came to
22 fruition, or they were never really carefully
23 looked at.

24 But the answer is, I think, eight,
25 yes.

1 MR. HUNTER: And that decision was in
2 February of this year, sir?

3 MR. BERRIEN: Yes, it was.

4 MR. HUNTER: And the Commission again
5 reiterated that landowner input is an essential
6 ingredient to routing a transmission line, that
7 you did not have the benefit of. Correct?

8 MR. BERRIEN: That is correct.

9 MR. HUNTER: And the Commission also
10 found that some of the landowners you were
11 retained by did not endorse your proposed bars.
12 Correct?

13 MR. BERRIEN: That is correct.

14 MR. HUNTER: You were retained to
15 undertake a report for Burnco. Right?

16 MR. BERRIEN: Yes.

17 Actually it was Burnco and Lehigh
18 Hanson, both.

19 MR. HUNTER: And the Commission in its
20 decision stated:

21 "During cross-examination..."

22 This is at paragraph 352.

23 "Burnco gravel operation witnesses
24 stated with respect to the Keephills
25 location gravel operation that they

1 preferred Alberta PowerLine's routing
2 to the Berrien route from an
3 operational viewpoint."

4 Does that sound right?

5 MR. BERRIEN: Yes. From the
6 operational, which was just one of the viewpoints.
7 But the operational one, they didn't like it.

8 MR. HUNTER: And you were also
9 retained by and filed a separate report on behalf
10 of the ERLOG, or East Route Landowner Group.
11 Correct?

12 MR. BERRIEN: Correct. Same hearing,
13 different clients.

14 MR. HUNTER: And reading from
15 paragraph 393 of the Commission's decision, they
16 said:

17 "Mr. Berrien applied his routing
18 experience to suggest routing
19 variations on the west route option
20 for Burnco to avoid gravel operations.
21 However, he did not have the benefit
22 of landowner input, and the Commission
23 agrees with Alberta PowerLine that
24 this input is an essential ingredient
25 in routing a transmission line. In

1 this regard, it is notable that Burnco
2 did not endorse Mr. Berrien's bar No.
3 1 from an operational point of view,
4 and that some of the members of ERLOG
5 were also not supportive of his
6 suggested variations."

7 Do you recall that?

8 MR. BERRIEN: Yes.

9 MR. HUNTER: Now, sir, on page 27 of
10 your report, you also make mention of two American
11 jurisdictions. Correct?

12 MR. BERRIEN: Yes.

13 MR. HUNTER: You didn't provide any
14 materials or summary of the routing criteria in
15 the 48 of the other states. Correct?

16 MR. BERRIEN: I didn't find any
17 others. I was looking for the EPRI material, but
18 didn't find it in any of those other ones.

19 MR. HUNTER: Have you appeared as an
20 expert witness in a transmission line route
21 proceeding in the United States, sir?

22 MR. BERRIEN: No, sir, I have not.

23 MR. HUNTER: Now, you mentioned in the
24 Bipole proceeding, and again this morning, that
25 you act for utilities as well as for landowner

1 groups. Correct?

2 MR. BERRIEN: I'm sorry, I didn't
3 understand a couple of your words. Would you
4 repeat that, please?

5 MR. HUNTER: You mentioned in the
6 Bipole proceeding, and again this morning, that
7 you act for utilities as well as for landowner
8 groups. Correct?

9 MR. BERRIEN: That's correct.

10 MR. HUNTER: And at page 19 of your
11 report, you mention the Updike Substation and
12 Transmission Line Project. Correct?

13 MR. BERRIEN: Correct.

14 MR. HUNTER: You were engaged by ATCO
15 as a routing specialist and witness on that
16 project, sir?

17 MR. BERRIEN: Actually, I was more
18 after the fact involved in providing them with
19 some consulting on how they put their application
20 together. I did not get involved -- at least I
21 don't remember getting involved in the actual
22 routing on that file.

23 MR. HUNTER: You testified as a
24 witness for ATCO in that proceeding, did you not?

25 MR. BERRIEN: I did.

1 MR. HUNTER: And that was for a 144 kV
2 line. Correct?

3 MR. BERRIEN: It was, yes.

4 MR. HUNTER: And the route that was
5 ultimately approved was about 28 kilometres in
6 length. Correct?

7 MR. BERRIEN: I don't remember, but it
8 sounds about right.

9 MR. HUNTER: And the 2009-049 decision
10 that you cite, that was the second time that the
11 Alberta Utilities Commission considered that
12 application for that project; correct?

13 MR. BERRIEN: Yes, it was -- it went
14 through the process twice. I don't remember the
15 years. If that's the second one, then I agree
16 with you.

17 MR. HUNTER: And you were a witness in
18 both proceedings, though, were you not,
19 Mr. Berrien?

20 MR. BERRIEN: Very briefly in the
21 first one; more so in the second one.

22 MR. HUNTER: ATCO was sent back to
23 re-evaluate route alternatives, and ultimately
24 refiled its application; is that --

25 MR. BERRIEN: That is correct. They

1 got approval on the second application, and I was
2 involved in the routing.

3 MR. HUNTER: The Commission did not
4 feel as if it had enough information to determine
5 if the route applied for was demonstrably similar.
6 Correct?

7 MR. BERRIEN: That's in the first
8 application. And in fact I think this is where --
9 the first time they use the term "the superior
10 route", that I can recall, at least, coming from
11 the Alberta Utilities Commission, or whatever the
12 name of it was at the time.

13 MR. HUNTER: Sending a utility back to
14 reassess routes is rare in Alberta, isn't it, sir?

15 MR. BERRIEN: I would agree. I've had
16 three experiences. One, I was partially involved
17 in; the other two, I was directly involved in, and
18 working for landowners in those cases.

19 MR. HUNTER: Okay. And the three
20 you're talking about, one is the Alberta Energy
21 Regulator project, the pipeline near Fort
22 Saskatchewan that you were talking about?

23 MR. BERRIEN: Correct.

24 MR. HUNTER: The other two were before
25 the Alberta Utilities Commission, or the Energy

1 Utilities Board, as it once was?

2 MR. BERRIEN: That's correct.

3 MR. HUNTER: The Updike one was before
4 the Energy Utilities Board, and you witnessed on
5 behalf of the utility in that case. Correct, sir?

6 MR. BERRIEN: For the line that was
7 approved on routing.

8 MR. HUNTER: And the other one that
9 you are referring to, near Claresholm, that's the
10 South Foothills Transmission Project; correct,
11 sir?

12 MR. BERRIEN: Yes, that's right.

13 MR. HUNTER: Now, you indicate on
14 page 49 of your report, sir, that the Alberta
15 Utilities Commission took up your recommendation
16 in that case. Correct?

17 MR. BERRIEN: Yes.

18 MR. HUNTER: The actual specific
19 recommendation you made, sir, was for AltaLink to
20 file an amendment for a route west of Claresholm,
21 wasn't it?

22 MR. BERRIEN: Yes.

23 MR. HUNTER: And in its decision, the
24 Commission didn't require AltaLink to file an
25 amendment, did it, sir?

1 MR. BERRIEN: Correct. They approved
2 the route that they originally looked for.

3 That isn't the point. The point is
4 that they required AltaLink to go back and review
5 the routing criteria and provide additional
6 information to the Board while they approved the
7 two ends and left that section unapproved. That's
8 the point.

9 MR. HUNTER: And the route that you
10 were proposing that they go back and look at, you
11 said in your report there was no contest that it
12 was a better route. Do you recall that?

13 MR. BERRIEN: I still think that's the
14 case. It followed an existing linear disturbance,
15 and it was the replacement of an existing power
16 line. I think the Commission got that one wrong.

17 MR. HUNTER: Okay. Well, I will read
18 what you said in your report, sir, and you can
19 tell me if you recall it.

20 "On an overall basis, the west site
21 routing has minimal incremental
22 impact, while the route east of
23 Claresholm has numerous major impacts.
24 Side by side, there is no contest.
25 The west side route, and that fully

1 paralleling routing, existed earlier
2 in the process clearly has the lowest
3 impact and is therefore the superior
4 route."

5 Does that sound right?

6 MR. BERRIEN: That was my opinion
7 then; it is my opinion now.

8 And I might just add to you that that
9 report and that recommendation was sufficient to
10 cause the Board to send AltaLink back to look at
11 it again. They didn't agree at the end of the
12 day, but it was sufficient at that point in time
13 for them to make the decision that they made,
14 which was no approval of that line in the initial
15 hearing.

16 MR. HUNTER: The Commission ultimately
17 found, sir, that a substantial majority of
18 landowners preferred the route that AltaLink
19 originally applied for. Correct?

20 MR. BERRIEN: Yes.

21 MR. HUNTER: Do you recall --

22 MR. BERRIEN: That didn't make it a
23 better route, by the way. That's just what the
24 landowners who wanted the line out of their view,
25 when they had the opportunity to move it to

1 somebody else's backyard, that's what that was all
2 about. And I was at the hearing, so I can tell
3 you that's what happened.

4 MR. HUNTER: So was I, sir.

5 MR. BERRIEN: Good. Well, then, you
6 know what I'm saying.

7 MR. HUNTER: Well, your opinion was
8 that it was a better route. The Alberta Utilities
9 Commission found that AltaLink's route had lower
10 overall impacts than the one that you proposed.
11 Correct?

12 MR. BERRIEN: As I said, that's their
13 decision, they're the ones who can make it. In my
14 view, it was a poor decision.

15 MR. HUNTER: Sir, if we can go to
16 page 49 of your report.

17 MR. BERRIEN: I have it.

18 MR. HUNTER: As part of your
19 assessment of this transmission line, you looked
20 at a report taken from the EIS called the Historic
21 and Future Climate Study. Is that correct?

22 MR. BERRIEN: Yes. I referenced that
23 as one of the pieces of information about the
24 risks of tornadoes. I extracted the entire page
25 and attached it to the report. Page 50.

1 MR. HUNTER: And your view, based on
2 your review of that information, was that the more
3 damaging tornadoes would be expected west of
4 Winnipeg. Correct?

5 MR. BERRIEN: Right.

6 MR. HUNTER: And in that corridor,
7 there is a 230 kV line that the 500 kV line would
8 parallel. Correct?

9 MR. BERRIEN: Yes.

10 MR. HUNTER: And you understand that
11 it was a 500 kV line paralleling another 500 kV
12 line; that was Manitoba Hydro's concern?

13 MR. BERRIEN: Yes.

14 MR. HUNTER: And you said it this
15 morning, you are not a weather expert -- you're
16 not a meteorologist. Correct?

17 MR. BERRIEN: Correct. I just put
18 this as information I felt that the Board might
19 want to have a look at when they judge whether the
20 risk profile that Manitoba Hydro is using in their
21 selection criteria is one that's worth making a
22 decision based on that. All I'm doing is
23 referencing it; I said I'm not an expert.

24 MR. HUNTER: And you don't have any
25 other expertise in atmospheric sciences. Correct?

1 MR. BERRIEN: I just said that. Yes.

2 MR. HUNTER: So your opinion on where
3 tornadoes may strike is purely a lay opinion.
4 Correct?

5 MR. BERRIEN: Well, I just -- I just
6 read it in the document. It's not my opinion;
7 it's what the document says, as far as I can tell.

8 MR. HUNTER: When you reviewed that
9 document, you believed that you were looking at
10 the weather study that Manitoba Hydro relied on to
11 assess the reliability risk of tornadoes on
12 parallel lines. Correct?

13 MR. BERRIEN: Yes, it was the only
14 thing that I found in the whole EIS that dealt
15 with this issue, so I had to make that conclusion.

16 MR. HUNTER: Okay. You haven't been
17 made aware, sir, that the document you reviewed is
18 not the weather study that Manitoba Hydro relied
19 on for its assessment of reliability risks?

20 MR. BERRIEN: As I just said, it is
21 the only one that I could find on tornadoes. If
22 there is another one, I didn't see it, and I'm
23 unaware of it.

24 MR. HUNTER: Okay. I take it, then,
25 that Mr. Toyne has not provided you with the copy

1 of the weather study which has been filed now as
2 Exhibit MH-031?

3 MR. BERRIEN: You could draw that
4 conclusion from my earlier answer.

5 MR. HUNTER: And the study's finding
6 that the return period for a tornado to hit
7 transmission lines running west/east for
8 25 kilometres would be in the order of 1 in
9 93 years? I take it you were not aware of that?

10 MR. BERRIEN: Is that more evidence
11 that you are giving, or are you just asking me
12 whether I'm aware of this study and anything says?
13 I'm not aware of it. Obviously, I didn't see it.

14 MR. HUNTER: And with respect to
15 parallel high voltage lines, you don't have
16 expertise in transmission system reliability, do
17 you, sir?

18 MR. BERRIEN: No, not at all.

19 MR. HUNTER: Now, Dr. Swatek gave
20 sworn evidence on the first day of the hearing
21 that the author of the weather study, Bob Morris,
22 formerly with Environment Canada, and one of the
23 authors of the Canadian Building Code, Dr. Swatek
24 indicated that there is really no one else more
25 qualified to estimate return periods. You have no

1 basis to disagree with that, do you?

2 MR. BERRIEN: No.

3 MR. HUNTER: Sir, I want to discuss
4 some of your specific routing recommendations in
5 your critique of the final preferred route. If
6 you could go to Bar 1.

7 MR. BERRIEN: Sure.

8 MR. HUNTER: On page 44 of your
9 report, the spacing for the closest home site that
10 you identify, it is approximately 250 metres from
11 the final preferred route. Is that correct?

12 MR. BERRIEN: Using the measuring tool
13 that was available on the map viewer, yes.

14 MR. HUNTER: And Bar 1 would place the
15 route approximately 400 metres from that home
16 site?

17 MR. BERRIEN: No, that one would --
18 would produce it about 500 metres. The home site
19 I think we're talking about is the one to the
20 southwest, and if you see the number 500, it would
21 move the line to 500 metres away from that site.

22 MR. HUNTER: Okay. And that would
23 bring it to within 400 metres of the other
24 residence?

25 MR. BERRIEN: That's right.

1 MR. HUNTER: And, sir, in the
2 Heartland proceeding, AltaLink and EPCOR applied
3 for a 500-kV line. Correct?

4 MR. BERRIEN: That's right.

5 MR. HUNTER: And that was a
6 double-circuit 500 kV line?

7 MR. BERRIEN: That's my recollection
8 of it, yes.

9 MR. HUNTER: Do you recall providing
10 testimony that at about 150 metres, the issues
11 associated with the 500 kV line would create
12 enough separation away from residences?

13 MR. BERRIEN: That sounds about right,
14 yes. I don't think that's the point of this
15 particular bar, though. The point of this bar was
16 to get rid of the heavy angles. The separations
17 were adequate, and that's why I was satisfied I
18 could bank that bar and not create any greater
19 impacts on landowners -- sorry, on residences that
20 were nearby.

21 MR. HUNTER: Now, the residence to the
22 south, there is a rail line between that residence
23 and the proposed route. Correct?

24 MR. BERRIEN: Yes, there is.

25 MR. HUNTER: And at the time that you

1 filed your report, the landowners weren't
2 consulted about the bar you proposed, were they?

3 MR. BERRIEN: No.

4 MR. HUNTER: If the affected
5 landowners' views in this area preferred the final
6 preferred route, would that be a relevant
7 consideration from your perspective?

8 MR. BERRIEN: Only if they had in view
9 that they could have had it further away, using
10 the bar, then I would say that that value judgment
11 would be a very relevant consideration. But
12 whether they objected to it or not, I don't know,
13 and I don't think that's the issue.

14 MR. HUNTER: Now, on page 45 of your
15 report, you then look at the next five segments,
16 451, 452, 406, 407, and 469, on the basis of
17 residential proximity alone. Correct?

18 MR. BERRIEN: Yes.

19 MR. HUNTER: You are not suggesting,
20 sir, that home sites can trump any other factor
21 along those segments?

22 MR. BERRIEN: Not trump any other
23 factor, but they are a very major consideration
24 that in my view was not adequately recognized in
25 the routing. And I went to some significant

1 lengths earlier today to demonstrate that -- all
2 of that consultation that you have taken me
3 through, that I didn't do, I went through some
4 significant discussion to show that it really
5 didn't matter what the consultation with the
6 landowners was, because the avoidance of home
7 sites did not play a role, evidently, in the route
8 selection that Manitoba Hydro is finally putting
9 forward as the preferred route.

10 So we just need to understand what we
11 are saying to each other here. This map shows
12 that you've built a route that in respect of the
13 issue of avoidance of home sites, which I
14 contend -- your cross-examination
15 notwithstanding -- is the more important criteria,
16 it didn't take that into account in any
17 substantive way. This map I believe demonstrates
18 that, certainly relative to the alternative of the
19 AY routing.

20 MR. HUNTER: And the route farther
21 east that you've shown, sir, would it be fair to
22 say that you would expect there to be additional
23 Crown land affected, relative to what has been
24 applied for?

25 MR. BERRIEN: I think there is some

1 more, yes. I couldn't give you a percentage.

2 MR. HUNTER: Your comparison, though,
3 sir, didn't evaluate the difference in impact
4 between Crown land and private land along those
5 segments. Correct?

6 MR. BERRIEN: No. This map had one
7 exclusive purpose, which is to show that the
8 preferred route goes through a high-density area,
9 with many, many home sites, and from my
10 perspective, that's a very poor routing
11 consideration, if alternatives, properly
12 evaluated, are available.

13 MR. HUNTER: On page 48, you have a
14 map of Bar 2, which is your suggested revision to
15 segments 482 and 472. Correct?

16 MR. BERRIEN: You need to understand,
17 I'm not suggesting anything. What I'm pointing
18 out here is that the text doesn't agree with the
19 map. That was my comment, is that you will have
20 to tell me which one of those routes you are
21 actually applying for, because the blue route is
22 not the route that is described by the segments on
23 this Insert Number 3.

24 MR. HUNTER: So if I were to tell you,
25 sir, that the blue route was in fact the preferred

1 final route, it would require at least three fewer
2 angle structures than Bar 2. Correct?

3 MR. BERRIEN: Oh, yeah. I mean,
4 clearly. That's the reason I'm bringing it to
5 your attention, sir, is that your application says
6 that it contains Segments 482 and 472. The line
7 is a straight line, which doesn't have a number in
8 this particular map. But what I was suggesting is
9 that if in fact you were going to deke out to 482,
10 that short little two right-hand angles, you would
11 be better served by doing the Bar Number 2.
12 That's what this is all about.

13 MR. HUNTER: But in not knowing, sir,
14 you didn't evaluate the blue route relative to
15 Bar 2. Correct?

16 MR. BERRIEN: There is no evaluation
17 of the route quality here at all, other than to
18 show 482 has two basically heavy angle structures,
19 and if 482 is the intended route, it is a damn
20 poor one.

21 MR. HUNTER: And you didn't speak to
22 landowners in this area before you filed your
23 report, did you?

24 MR. BERRIEN: Am I going to go and ask
25 a landowner whether your map is accurate? That's

1 what you are asking me. And of course that's an
2 absurd proposition.

3 The answer is no, I didn't speak to
4 any landowner. I'm speaking to the Commission to
5 say the description doesn't match the map.

6 MR. HUNTER: And if the affected
7 landowners in this area, sir, preferred the blue
8 route, would that be a relevant consideration,
9 from your perspective?

10 MR. BERRIEN: Not with respect to what
11 the issue is. I'm sorry, but you don't seem to be
12 listening. You just ask a question and then go on
13 to the next one.

14 The point is that your application
15 says it contains Segment 482. The blue line is
16 not Segment 482. It is that simple. It has
17 nothing to do with the landowners.

18 You tell this Commission which line
19 you are applying for. The text says one thing;
20 the map says another. I can't reconcile those two
21 things.

22 You're not going to be able to give
23 evidence; somebody from Manitoba Hydro is going to
24 have to. I'm simply pointing out there is an
25 inconsistency.

1 Are we clear on that one, finally? We
2 don't get into landowners any more?

3 MR. HUNTER: Yeah. I just --

4 MR. BERRIEN: Good.

5 MR. HUNTER: -- want to be clear for
6 the record. You didn't speak to the landowners in
7 this area?

8 MR. BERRIEN: Asked and answered.

9 MR. HUNTER: Let's go to your feature
10 table, on page 54 of your report, sir.

11 MR. BERRIEN: I have it.

12 MR. HUNTER: Now, the information for
13 the SIL and AY route segments, that was taken from
14 the response to the information requests from the
15 Southeast Stakeholders Coalition. Correct?

16 MR. BERRIEN: We should call it the
17 corrected IR response, yes.

18 MR. HUNTER: And you didn't include
19 all of the criteria that were included in
20 Table 5-27, though. Correct?

21 MR. BERRIEN: That's right. There was
22 things in there that I couldn't really evaluate,
23 so I didn't include them. And I said so. I said
24 it is not a full list; it is the list of things
25 that I could see that were clear, in terms of my

1 ability to understand what they meant.

2 MR. HUNTER: And you read that
3 information response, SSC IR 251, the response
4 Manitoba Hydro provided?

5 MR. BERRIEN: Yes.

6 MR. HUNTER: Did you see on page 2 of
7 that response, sir, where Manitoba Hydro indicated
8 the original table was an editing error that
9 occurred in the compilation of the EIS? Did you
10 see that?

11 MR. BERRIEN: I saw that. I have no
12 idea what that means. When you say an editing
13 error, does that generate 21 out of 22 different
14 numbers under the AY thing? I think that's a
15 little more than an editing error. At least in my
16 view it is.

17 MR. HUNTER: I think it means, sir,
18 that an error was made in the compilation of the
19 EIS. What I don't see in the response is that
20 they relied on this table. Is that fair?

21 MR. BERRIEN: No, it's not fair.
22 That's a conclusion that you are asking the
23 Commission to draw that's not in evidence.

24 MR. HUNTER: But you don't know that,
25 do you, sir?

1 MR. BERRIEN: No, what I do know is
2 that there's two different sets of numbers, and if
3 you read my testimony, and the text, you will see
4 that I'm not sure what it means. But if in fact
5 there are mistakes in that original document, in
6 the EIS, then your people had the wrong data to
7 rely upon.

8 But I don't know. That's the issue.
9 There is uncertainty.

10 MR. HUNTER: Sir, where the criteria
11 in Table 527 had a calculated value, you didn't
12 use them for your table. Correct?

13 MR. BERRIEN: That's correct. I said
14 so, yes.

15 MR. HUNTER: You only used the
16 features that were an actual measurable and
17 observable statistic. Correct?

18 MR. BERRIEN: Correct.

19 MR. HUNTER: And one of those features
20 you did not include was intactness. Correct?

21 MR. BERRIEN: Yes. I still don't
22 understand how that comes about, but I didn't use
23 it.

24 MR. HUNTER: And seasonal construction
25 and maintenance restrictions was another feature

1 that you didn't use. Correct?

2 MR. BERRIEN: Correct.

3 MR. HUNTER: Proximity to existing
4 500 kV transmission lines wasn't used in your
5 table. Correct?

6 MR. BERRIEN: That's correct.

7 MR. HUNTER: And accessibility wasn't
8 used in your table. Correct?

9 MR. BERRIEN: That's correct.

10 MR. HUNTER: And you also did not
11 include conservation and designated lands.
12 Correct?

13 MR. BERRIEN: Correct.

14 MR. HUNTER: And that feature, sir,
15 was quantified in acres in Table 5-27. Correct?

16 MR. BERRIEN: Correct.

17 MR. HUNTER: Acres are measurable and
18 observable. Correct?

19 MR. BERRIEN: Yes, they are. Yes.

20 MR. HUNTER: If we go to Table 5-27,
21 the AY segment crossed more acres of conservation
22 and designated lands than the SIL segment.
23 Correct?

24 MR. BERRIEN: Yes.

25 MR. HUNTER: And you listed the cost

1 of the SIL segment as \$152 million in your table.

2 Correct, sir?

3 MR. BERRIEN: That's what it says,
4 yes. In fact, I see it should be 142. That's an
5 error, and I admit it.

6 MR. HUNTER: Thank you, sir.

7 That would make the SIL segment about
8 \$3 million less than the AY segment. Correct?

9 MR. BERRIEN: That is correct. That
10 would change the rating to -- the yellow would
11 move to the SIL, and the red would move to the AY.

12 MR. HUNTER: And on page 57 of your
13 report, you mention that the Manitoba Hydro costs
14 are rough. You don't have any expertise to
15 provide an expert opinion on cost estimates for
16 transmission line facilities. Correct?

17 MR. BERRIEN: That's correct. But
18 what I do have the capacity to do is read. And
19 the last line in the table that we've just been
20 going over says costs used were high-level
21 estimates, construction costs used for relative
22 comparison.

23 I can only interpret that as having an
24 element of roughness in it. I don't think that
25 I'm reading that there is any precision to those

1 numbers at all.

2 MR. HUNTER: But you are not claiming
3 any expertise in relation to them?

4 MR. BERRIEN: Asked and answered. But
5 I do read the English language, and I just cited
6 to you why I made that conclusion.

7 MR. HUNTER: If we could go to page 55
8 of your report, sir.

9 MR. BERRIEN: Certainly.

10 MR. HUNTER: You acknowledge that a
11 route further west of the preferred route would
12 provide less forest clearing. Correct?

13 MR. BERRIEN: That's right.

14 MR. HUNTER: You say it is called
15 logging. Correct?

16 MR. BERRIEN: Yeah, when you cut down
17 trees and set them aside, that's logging.

18 MR. HUNTER: And you are not an expert
19 on biophysical environmental features. Correct?

20 MR. BERRIEN: That's correct.

21 MR. HUNTER: And you haven't assessed
22 the monetary value of the trees that would be
23 salvaged, have you?

24 MR. BERRIEN: No. I'm not worried
25 about it, because compensation is paid where there

1 is a monetary loss, so that wouldn't be a factor
2 that would drive my views one way or the other.

3 Your client has indicated many times
4 that they would compensate for any direct impact,
5 so I didn't worry about it.

6 MR. HUNTER: Sir, you said in the
7 Bipole proceeding that you can't pick a
8 transmission line route without windshield
9 surveys, or what you called "on the ground
10 look-sees", can you?

11 MR. BERRIEN: I'm sorry, I didn't
12 catch the drift of the question. I apologize.
13 I'm not being obtuse; I just didn't understand it.

14 MR. HUNTER: In the Bipole proceeding,
15 sir --

16 MR. BERRIEN: Okay.

17 MR. HUNTER: -- you testified that you
18 can't pick a transmission line route without
19 windshield surveys, or what you called "on the
20 ground look-sees". Correct?

21 MR. BERRIEN: I would agree with that.

22 MR. HUNTER: Now, you both drove and
23 flew the final preferred route as well as the AY
24 route. Correct?

25 MR. BERRIEN: That's right.

1 MR. HUNTER: And this was undertaken
2 over two days?

3 MR. BERRIEN: Yes.

4 MR. HUNTER: And you spent one day
5 driving the route, sir?

6 MR. BERRIEN: And the second -- part
7 of the second day in the helicopter, correct.

8 MR. HUNTER: And part of the second
9 day in the helicopter.

10 MR. BERRIEN: Yeah. Didn't take all
11 eight hours to fly the route.

12 MR. HUNTER: Okay.

13 On page 56 of your report sir, you say
14 it was a surprise to you that the final preferred
15 route had more stream crossings. Do you see that?

16 MR. BERRIEN: Yes.

17 MR. HUNTER: Sir, would it be fair to
18 say that it was a surprise to you because the two
19 days that you spent on the ground and in the air
20 wasn't adequate to familiarize yourself with the
21 area?

22 MR. BERRIEN: No, I wouldn't say that
23 at all.

24 MR. HUNTER: Thank you, Mr. Chairman,
25 Commissioners. Those are my questions for

1 Mr. Berrien.

2 THE CHAIRMAN: Thank you very much.

3 All right, it is my understanding that
4 Peguis First Nation and Mr. Valdron may have
5 questions. Is that true?

6 MR. VALDRON: I do believe I have one
7 or two questions, perhaps.

8 I note that it is about 2:40, and I
9 could use a little bit of a break. So can we take
10 ten minutes?

11 THE CHAIRMAN: You are suggesting we
12 take the normal three o'clock break now?

13 MR. VALDRON: Yes.

14 THE CHAIRMAN: Panel okay with that?

15 Okay, good. Thanks. We will be back
16 here, then, at 5 minutes to 3. Thanks.

17 (Recessed at 2:40 p.m. to 2:57 p.m.)

18 THE CHAIRMAN: All right. If you
19 could take your seats, we are going to resume.

20 And I think, Mr. Valdron, then you are
21 going to begin your questioning. So we will start
22 with Peguis, on behalf of Peguis, and we will
23 start that questioning now, if you are ready,
24 Mr. Berrien.

25 MR. BERRIEN: Any time, sir.

1 MR. VALDRON: Okay. All right. There
2 we go. That's it. All right.

3 For the monitor, Den Valdron,
4 representing Peguis First Nation.

5 And so here we are. Mr. Berrien, it
6 is a pleasure to meet you. I hope that you've had
7 a chance to rest; I appreciate just how punishing
8 being in testimony all day can be, and I will try
9 and be as brief and as painless as possible.

10 MR. BERRIEN: Sir, you can swing for
11 the fences, but -- no problem. I'm happy to
12 answer your questions.

13 MR. VALDRON: That's just excellent.
14 Thank you very much.

15 Now, my colleague was very thorough,
16 so there may be a few questions that kind of seem
17 to overlap a little bit with where -- things you
18 might have already answered, I will ask you to
19 forbear with me, because I may be looking into a
20 few different little things. Mainly right here
21 what I'm doing is I just want to clarify some
22 things.

23 My first question might possibly be a
24 little bit silly. I'm looking at your chart on
25 page 54. Holding it up, it's -- that's your

1 red/green chart, right?

2 MR. BERRIEN: Correct.

3 MR. VALDRON: All right. Just for the
4 record, that has nothing to do with the Red Green
5 TV show.

6 MR. BERRIEN: Has nothing to do with
7 what?

8 MR. VALDRON: Has nothing to do with
9 the Red Green TV show. Red Green, Steve Smith?

10 MR. BERRIEN: No. I've never had that
11 question before. The answer is no. Nothing
12 whatsoever.

13 MR. VALDRON: Okay.

14 MR. BERRIEN: Colours of a stop light;
15 that's what these are.

16 MR. VALDRON: Ah. Because, you know,
17 duct tape is a good thing, but ...

18 Anyway, okay. So now I'm looking at
19 this red/green table, as we are looking at it, and
20 would it be fair to say that this table is like --
21 as I understand your testimony, you are all about
22 identifying and assessing, like -- you know,
23 priorities in terms of components. So
24 identifying, say, which components are more
25 important, or critical, I suppose. So relocated

1 residences: That would be a very priority issue.

2 MR. BERRIEN: I think you've
3 understood my testimony correctly, yes.

4 MR. VALDRON: Beautiful, because I'm
5 not sure. Obviously you are a routing expert; I'm
6 not. And you will have to forbear with me,
7 because I'm sort of new to the process. So I may
8 get a little bit confused about things; that's why
9 I'm asking questions, just to get clear.

10 All right. So this table here, this
11 red/green table, that -- would it be fair to say
12 this represents your assessment of priorities?

13 MR. BERRIEN: As indicated, the
14 table -- or this table was based upon in large
15 part, a document that came out of the Manitoba
16 Hydro EIS, where they had listed what they called
17 statistics of the final route.

18 What I wanted to do was get into that
19 in more detail in a comparative way. You may
20 recall my testimony earlier, that my view is that
21 you are looking for a superior route, and the
22 superior route is one that has the fewest impacts
23 possible on a comparative basis. In other words,
24 you can't have "superior" in a vacuum.

25 MR. VALDRON: Right.

1 MR. BERRIEN: So this chart is
2 attempting to take the statistics that I believed
3 were available and relevant. I have provided
4 earlier in my testimony some consideration of what
5 is more important in routing considerations, in my
6 opinion, than others.

7 MR. VALDRON: Um-hum.

8 MR. BERRIEN: I've added a few more in
9 that I thought needed to be dealt with, because
10 there didn't seem to be any representation of
11 First Nations concerns in the statistics. But I
12 also said that this is just a very, very
13 scratch-the-surface of First Nations concerns.

14 But I think it is important for the
15 Commission to have statistics, and I think they
16 were looking for statistics. I think they were
17 looking for them in a comparative way, so that
18 they could exercise their judgment, and not just
19 have to accept the weightings and the other things
20 that I was critical of, as set forth by Manitoba
21 Hydro.

22 So that's what this document is
23 intended to do, is set out the things that not
24 only Manitoba Hydro set forth, but that I also
25 consider important, and to put them on a

1 comparative basis, relative to what is better and
2 what is worse, from a routing point of view.

3 MR. VALDRON: Okay. So this chart,
4 this table, this list, represents your assessment
5 of comparative importance? Or does it represent
6 Hydro's --

7 MR. BERRIEN: Both.

8 MR. VALDRON: -- in your view?

9 MR. BERRIEN: It is a combination,
10 sir.

11 MR. VALDRON: Okay.

12 MR. BERRIEN: A combination.

13 MR. VALDRON: Okay. You appreciate my
14 clients are kind of concerned, because you know,
15 when we look at their issues, plant gathering and
16 hunting sites, they are right at the bottom. I
17 mean, they are absolutely, way -- right down there
18 at the end. Almost everything -- well, every
19 single thing is more important. Proximity to hog
20 operations, hayland, seems to be more important
21 than their priorities.

22 MR. BERRIEN: I think that's a
23 misreading of the intent of this chart. I put
24 those in because they weren't included in Manitoba
25 Hydro's list. Remember, this is based on their

1 table. And my comment, a page or two earlier, is
2 that I thought the list was incomplete without it.

3 So from my perspective, I wanted to be
4 more sensitive to some of the issues that concern
5 your clients than I perceive Manitoba Hydro was,
6 in terms of stuff you could put in front of the
7 Commission for their weighting and consideration.

8 I don't think you should read into the
9 fact that it is at the bottom of a list in
10 anything other than the fact that I had to edit,
11 and there was already an existing list.

12 MR. VALDRON: Okay. So the fact that
13 it is at the bottom doesn't reflect your opinion
14 that it is, you know, the least important of the
15 bunch; it is just you had to put it in some place?

16 MR. BERRIEN: Well, it was appended to
17 an existing table, and that's just where there was
18 room to put it. That's all. You should not read
19 anything into that.

20 MR. VALDRON: Okay. No, no, fair
21 answer. And I won't. But it does lead to the
22 next question, which is: Well, if it is not at
23 the bottom of the list of priorities, where would
24 you put it on this list?

25 MR. BERRIEN: I will be honest with

1 you, I haven't had occasion to do that, to make
2 that value judgment. Okay? And what I've said is
3 that there is data -- there is a lot more data
4 that should be considered, and that that data
5 needs to be presented in a format that the
6 Commission -- in my view, at least -- can weigh
7 and deal with, so that they in fact are the ones
8 that at the end of the day can make the
9 appropriate value judgments.

10 I must tell you, sir, it is a very
11 insightful question; I haven't had a chance to
12 really do that yet. And I must confess I don't
13 have a great deal of experience with that; very
14 little. And it would take a lot more knowledge
15 and background work to gain a feeling so that I
16 could achieve a level of prioritization.

17 MR. VALDRON: So if I understand your
18 evidence correctly, then, what you are saying is
19 that -- well, it belongs in here someplace, and
20 you put it on the end because you didn't know
21 where else to put it, but you can't really assess
22 the priority of these items in terms of the
23 overall?

24 MR. BERRIEN: I would agree with that.

25 MR. VALDRON: Okay. By the way, you

1 don't have to call me "sir"; every time you do, it
2 makes me look around for my dad.

3 MR. BERRIEN: You are going to keep
4 looking.

5 MR. VALDRON: Gosh darn it. All
6 right.

7 You will excuse me for a second;
8 sometimes dreadfully disorganized.

9 All right. So, as I said, I'm not a
10 route planner, so this is pretty new to me, and --
11 but I do represent First Nations, so that's kind
12 of where I'm coming from. And as I understand
13 your evidence as a route planner, one of the
14 things you come to us to do with us today is to --
15 you know, help us assess priorities. Is that
16 correct?

17 MR. BERRIEN: I have indicated that I
18 have some opinions on what priorities may be, to
19 the extent that I base a lot of that on the review
20 of prior decisions, where other boards and panels
21 have indicated what they see as important, and
22 from what various landowner opinions have
23 indicated are important.

24 I don't have that information from the
25 First Nations, other than -- "We don't like this

1 area" or "We prefer it to go over there."

2 I listened with great interest to the
3 lady who was sitting here talking about the Metis.
4 I wouldn't presume to assume that the Metis'
5 priorities are the same as the Peguis'. I have no
6 knowledge, and I can't make that assumption.

7 But there seems to be a variety of
8 issues that have greater or lesser importance.
9 There are a variety of issues that -- at least in
10 the Metis' considerations -- that were illuminated
11 yesterday, a pre-existing linear disturbance is
12 going to actually constitute an incremental
13 impact.

14 And I just was reading it here a
15 moment ago, her document; Metis people want to
16 stay 100 metres away from a railroad track. Well,
17 if that's the case, then maybe that's not a bad
18 opportunity to put a power line, because it is an
19 area that they already avoid.

20 I don't know those things, though, but
21 I think they are questions that bear some
22 investigation. And when that information is
23 available, it can be put on a comparative basis,
24 and the Commission can look at the factors, weigh
25 them, and decide -- "Yeah, maybe we will share the

1 pain; maybe the issues that are important to
2 Peguis and Metis are offset to some degree by
3 issues that are important to private landowners."

4 Or the Metis and First Nations issues
5 are more important. But that's a decision for the
6 Commission to make, with adequate information that
7 currently, in my view, does not exist in this
8 application.

9 MR. VALDRON: That's very fair.

10 Now, just for the record, and I just
11 want to sort of nail these things down: You did
12 hear the Metis submission yesterday; I remember
13 seeing you in the audience.

14 MR. BERRIEN: I was here for part of
15 her discussion, not all of it.

16 MR. VALDRON: For part it of, not all
17 of it.

18 You definitely weren't here for the
19 Peguis or the Southern Chiefs' Organization's
20 testimonies.

21 MR. BERRIEN: That's correct.

22 MR. VALDRON: Okay. And correct me if
23 I'm wrong, but you didn't read their transcripts;
24 correct?

25 MR. BERRIEN: I did not get the chance

1 to go through those transcripts. That's correct.

2 MR. VALDRON: You read some of the
3 other transcripts, though?

4 MR. BERRIEN: I did. There's a matter
5 of availability and timing.

6 MR. VALDRON: Yeah, I know; there's
7 over 2,000 pages of transcripts. It is just
8 humongous.

9 But you did review the ATK studies,
10 correct?

11 MR. BERRIEN: I had a look at some of
12 that stuff, yes, I did. That's where I got these
13 maps from. Yes, yes.

14 MR. VALDRON: Okay. So that was
15 chapter 11. Did you read all of chapter 11, or
16 just some of it?

17 MR. BERRIEN: I can't give you a
18 honest answer; I just don't remember whether I
19 read the entire thing. But I certainly went
20 through all the pages looking for data, not just
21 opinions, but data; and when I didn't find what I
22 considered to be data in the pre-evaluated form,
23 that's why I created data from my own counts, and
24 I said what it is and what the numbers are.

25 But as I say, that's just scratching

1 the surface of what is probably available.

2 MR. VALDRON: Okay. And I hate to do
3 this to you, but for instance, Peguis has a graph
4 study that's out; you didn't read that draft, did
5 you?

6 MR. BERRIEN: No.

7 MR. VALDRON: Okay. All right. I
8 apologize; I just had to get all that on the
9 record.

10 Anyway, moving on a bit. And just to
11 be fair, I appreciate you are here as an expert; I
12 appreciate that what you are doing is giving us
13 your opinion. Okay? I'm perfectly good with
14 that. I just want to understand that opinion a
15 little bit more. So if you will excuse me a
16 little bit if I wander around a little.

17 One of the things that you
18 referenced -- and I'm not going to look up the
19 page right now -- but you referenced the Minnesota
20 statute, correct?

21 MR. BERRIEN: Yes, I did.

22 MR. VALDRON: Okay, now -- and I
23 believe the Minnesota statute put up a long list
24 of criteria.

25 You can refer it, if you want; I

1 assume you know it better than I do.

2 MR. BERRIEN: I don't have it
3 memorized, but I know where it is, and I can have
4 another look at it.

5 MR. VALDRON: Okay. Well, it set up a
6 long list of criteria. And I seem to recall that
7 when you were writing your report, you indicated
8 that the ordering of the list reflected the
9 relative importance of the criteria.

10 Now, was that in the statute itself?
11 Like, does the statute say "This is our list, and
12 the relative priority or importance in this list
13 is reflected by the order"? Or did they just set
14 out, like, a list of criteria, and you're just
15 making that assumption?

16 MR. BERRIEN: I would have to say I'm
17 making that assumption. I don't believe they
18 actually set out a prioritization of it. I would
19 have to go back and look, but I don't think they
20 did.

21 MR. VALDRON: Okay. I don't want to
22 trap you or anything: Do you want to take a quick
23 look.

24 MR. BERRIEN: It will only take me a
25 moment.

1 MR. VALDRON: Yeah, sure thing.

2 I've found it for you. It is page 27.

3 MR. BERRIEN: Yeah, I've got that.

4 I'm just looking to the other material that
5 accompanied the guiding principles.

6 I don't think there is a specific --
7 in relation to that list, I don't think there is a
8 specific order that the legislation requires to be
9 looked at.

10 MR. VALDRON: Okay. So then the
11 assessment of the order is just -- you were just
12 assuming, just from the way the list is drawn up,
13 that this is the order, but --

14 MR. BERRIEN: I think that's true.

15 MR. VALDRON: Okay. But that's not
16 necessarily correct; it could have been -- I mean,
17 Minnesota might have had any order in mind?

18 MR. BERRIEN: I suppose so, but if
19 they went to the trouble of putting a list down
20 and they had an order, I suspect they might have
21 set it out. But that's an assumption.

22 MR. VALDRON: Okay. All right.

23 Now, Minnesota was the only statute
24 that you referred to, so I'm assuming -- and I can
25 stand to be contradicted -- that there was no

1 Manitoba statute that set out any list or order or
2 priorities. Is that correct?

3 MR. BERRIEN: I believe that's
4 correct.

5 MR. VALDRON: And I'm going to go out
6 on a limb here: No Alberta, no Quebec, no
7 Saskatchewan?

8 MR. BERRIEN: Actually, in Alberta, it
9 is called Rule 007; it is a rule that is put in
10 place for the electric system operator, and when
11 any routing consideration is put forward, they
12 actually have the criteria in there.

13 And I've actually referenced it in my
14 document, and that is -- I think it is a
15 regulation, as opposed to legislation.

16 MR. VALDRON: Regulation is good
17 enough for me.

18 So in Alberta, they have a regulation.
19 How far back does that regulation go?

20 MR. BERRIEN: You mean when was it
21 promulgated?

22 MR. VALDRON: Yes.

23 MR. BERRIEN: I might be able to tell
24 you that.

25 MR. VALDRON: If you could.

1 MR. BERRIEN: No, I don't have the
2 actual date of that. But I can tell you that the
3 characteristics that come out of that -- and it is
4 called NID 12 -- go back 30 years, virtually
5 verbatim. So we could say it goes back at least
6 to the 80's. Whether it is in the regulation that
7 far back, I don't know the answer to that.

8 MR. VALDRON: Okay.

9 Now, on this Alberta regulation, they
10 set out a set of criteria, much like the Minnesota
11 statute. Correct?

12 MR. BERRIEN: Correct.

13 MR. VALDRON: Okay. And again, I will
14 ask a similar question: Do they assign priorities
15 to those criteria?

16 MR. BERRIEN: No.

17 MR. VALDRON: Okay. So in terms of
18 assessment of criteria, I'm assuming that what you
19 had to do was look at a variety of decisions and
20 influences and papers right across the province,
21 right across the country, and from that,
22 extrapolate or discern the priorities.

23 MR. BERRIEN: You would be correct.

24 MR. VALDRON: Okay, great.

25 So, looking at your list of

1 appendices, okay -- and you may find me a little
2 repetitive for the other guy, but bear with me --
3 so looking at your list of appendices on page 4,
4 these were all the documents that you sought
5 advice and guidance from. Correct?

6 MR. BERRIEN: Yes. They are mainly
7 previously decided cases. Not all, but mainly.

8 MR. VALDRON: Okay. And there is
9 quite a few Alberta cases. Obviously, you said
10 that, being from Alberta, and perhaps Alberta
11 having more involvement.

12 And some of these cases would have
13 been decided in the context of the Alberta
14 regulation?

15 MR. BERRIEN: Oh, yeah, I think most
16 of them would have had that. In fact I think
17 that's -- you could infer that pretty easily by
18 the material in the report.

19 MR. VALDRON: Um-hum. Okay.

20 And we don't have a similar regulation
21 here from -- in Manitoba, so there is a certain
22 amount of inferentiality going?

23 MR. BERRIEN: Yes.

24 MR. VALDRON: Okay. We are not bound
25 in Manitoba by the Alberta regulation; we don't

1 have an equivalent regulation. So, essentially,
2 if I understand, what we are trying to do is
3 borrow the wisdom or --

4 MR. BERRIEN: I'm sorry, I missed what
5 you said. Follow what?

6 MR. VALDRON: What we are trying to do
7 is borrow the wisdom --

8 MR. BERRIEN: Right.

9 MR. VALDRON: -- sort of the rationale
10 and reasoning --

11 MR. BERRIEN: Yes.

12 MR. VALDRON: -- and hope that it is
13 portable. Okay.

14 Now, looking at some of these
15 decisions or these extracts, you got one from
16 1975, I think, the Solandt Commission; we have got
17 one from '77, one from '76. Got a few from 1980,
18 '81. You said you were casting the net pretty
19 wide, and you are definitely right.

20 Now, correct me if I'm wrong, but
21 Canada patriated its Constitution back in '82; is
22 that correct?

23 MR. BERRIEN: Which, in '82?

24 MR. VALDRON: Canada patriated its
25 Constitution?

1 MR. BERRIEN: Correct. Mr. Trudeau
2 did his dance, as I recall.

3 MR. VALDRON: Yes, I remember that.

4 In the Constitution, Aboriginal
5 rights, Aboriginal and Treaty rights were
6 enshrined in Section 35 for the first time; is
7 that correct?

8 MR. BERRIEN: As far as I understand
9 it, yes.

10 MR. VALDRON: That's fair.

11 So, many of these decisions -- not all
12 of them, but many of the ones that we are looking
13 at here, the early ones, are coming out before
14 there is a constitutional protection for
15 Aboriginal and Treaty rights.

16 MR. BERRIEN: That would be correct.
17 To the extent that that's important, it would be
18 covered under -- if I can call it the duty to
19 consult and accommodate, where those interests are
20 found to be in existence.

21 I think there is quite a few of these
22 lines that First Nations have intervened, been
23 heard by the Commission, but that doesn't
24 eliminate the necessity to consult and
25 accommodate.

1 First Nations have been appearing at
2 these hearings well before Section 35 was
3 repatriated back in the early 80's. To the extent
4 that their legal protections are enshrined after
5 repatriation, they have a stronger hand to play;
6 no question about that.

7 I think it is fair to say -- and I
8 think I noted this in my report -- that the degree
9 of the First Nations, and the areal extent of the
10 areas where the power line in this case might go,
11 probably exceeds any of the other ones that I have
12 dealt with before.

13 You have to remember, Treaty 7 and all
14 the rest of them, we have more defined areas, if I
15 can put it that way.

16 I have not seen, other than some
17 constitutional challenges that were dealt with by
18 the Commission in Alberta, I haven't seen the
19 extent of First Nations interests being
20 represented to the extent that they are here.

21 And that's one of the reasons, by the
22 way, that I felt that I needed to add something,
23 because there was a hole in the evidence. I
24 haven't filled that hole, by any means, but I
25 recognize that there is one.

1 MR. VALDRON: Well, I certainly
2 appreciate that, let me tell you. You had a very
3 elaborate report, and I was glad to see that First
4 Nations were in it.

5 Now, you mentioned consultation, and I
6 think it is interesting, the Supreme Court case
7 that involved consultation, one of the big three
8 was Mikisew, and that was out of Alberta, wasn't
9 it? Back in 2004?

10 MR. BERRIEN: I don't know the year of
11 it. It has been around for a while, yes.

12 MR. FERBERS: Okay. But you heard
13 about it.

14 MR. BERRIEN: Yes.

15 MR. VALDRON: And consultation really
16 seems to have become a significant factor only
17 really after 2010, when the Supreme Court
18 revisited in Rio Tinto.

19 MR. BERRIEN: It certainly has been
20 significant for the last ten years or so; to a
21 greater extent than most of the earlier part of my
22 career, for sure. Yes.

23 MR. VALDRON: So if we look at some of
24 these earlier cases, even 2009, or 2006, these are
25 cases or events which are occurring before the --

1 what would be the word -- before the "see change"
2 in Aboriginal rights, where consultation issues --
3 where the assertion of Aboriginal rights just
4 becomes more and more important.

5 MR. BERRIEN: I would agree with that.

6 MR. VALDRON: Okay. So the amount of
7 weight that you can put on some of these things
8 becomes a little bit iffy.

9 MR. BERRIEN: I would say to you this:
10 First Nations have greater rights than the rest of
11 us who are not First Nations or Metis members.
12 Those rights are enshrined in the Constitution, as
13 we've just discussed. But to the extent that
14 power line routing through settled areas may
15 infringe upon home sites, and other things like
16 that, I am still going to keep home sites at the
17 top of my list, and that comes from 35 years of
18 working for companies and landowners.

19 I typically wouldn't expect to find
20 home sites in areas where First Nations interests
21 were high. I might be wrong, but I would suggest
22 to you that they may represent some exclusionary
23 concepts where you are not going to find some of
24 those areas in critical conflict with one another.

25 I could be wrong, but as I said to you

1 in response to some of your earlier questions, I
2 really haven't weighed it; I don't have enough
3 information to do it here.

4 But I don't have any question at all
5 that on private land areas, it is well
6 established -- at least in my mind, and I don't
7 think any serious route planner would contest
8 it -- that the avoidance of home sites, farm
9 buildings, and agricultural opportunities and
10 activities constitutes some of the most important
11 routing principles that we would generally see
12 found across Canada.

13 MR. VALDRON: And I think you are
14 right, with respect to private lands alone. But
15 the trouble that we run into is that we begin to
16 get into contest between private lands and Crown
17 lands, which start to invoke Aboriginal or Treaty
18 rights. Would you agree with that?

19 MR. BERRIEN: Yes. The conflict is
20 going to come when routing evaluations put the
21 alternatives between private land and any land
22 where First Nations can claim a legitimate
23 interest.

24 That doesn't automatically, as far as
25 I understand, mean that the First Nations

1 interests are prioritized; they have to be
2 considered and accommodated, is my
3 understanding -- this is me, now. Okay? This is
4 not the law; I'm not a lawyer.

5 MR. VALDRON: No.

6 MR. BERRIEN: We established that
7 earlier. But to the extent that a Commission or a
8 Board is making a decision on the lowest-impact
9 route, they need data, they need information, not
10 just an opinion, like, "I don't want it there."

11 Well, the private landowners don't
12 want it there either. The duty to accommodate and
13 to consult doesn't automatically give that routing
14 a priority, in my understanding. Okay?

15 MR. VALDRON: But isn't this really
16 the contest that we are having? Because, I mean,
17 what your testimony has been all about is
18 attempting to identify and set priorities. And
19 now we come to First Nations interests, and you
20 say "Well, it is there, but we are not going to
21 give it a priority."

22 Well, if you are setting out a
23 hierarchy of priorities, it's got to be recognized
24 in there somewhere; it can't sit over to the side.

25 MR. BERRIEN: I agree, and what I

1 think is the penultimate opinion that I've
2 provided is that there is a route that hasn't been
3 thoroughly explored, that affects some First
4 Nation interests, affects some private land
5 interests. I wasn't suggesting for a moment that
6 we would prioritize private land interests over
7 First Nations interests.

8 What I have said -- I think pretty
9 clearly -- is that this middle area, where those
10 First Nations clearly have concerns, needs to be
11 studied more thoroughly; it needs to have data
12 provided, so that this Commission can in fact look
13 at those things and assign priorities and weights.

14 But they don't have the information to
15 do so. I think they should have it, because I
16 don't think that -- and I would have to say this:
17 The cross-examination that I've been through so
18 far didn't get into most of the issues I had with
19 the EPRI process and mechanics. They stand, in my
20 view, uncontested.

21 That's my opinion. Okay? I might
22 think something different.

23 But the point of it is that if that
24 process is deemed by the panel to be less than
25 reliable, or not conclusive, I have suggested to

1 them they have the right and the capacity to
2 ignore the application in the middle, pending more
3 information. Pending more data. First Nations
4 data, particularly, is absent.

5 Then the possibility of assigning
6 criteria, weights, priorities, can be done with
7 full information. I don't think that full
8 information currently is in hand.

9 MR. VALDRON: Well, I don't think that
10 was the question that I asked you, but it was a
11 very good answer, so I will thank you for it.

12 MR. BERRIEN: I appreciate that.

13 MR. VALDRON: No problem.

14 And as for the -- I can't even
15 pronounce it; EPR-something-something -- that's
16 for my learned friends to cross-examine. I have
17 different fish to fry.

18 I've got to wonder, though, I mean,
19 you said, "Okay, well, this information is not up
20 here."

21 But it seems to me that what it really
22 is is you didn't have this information, but it is
23 here. I mean, you've said -- you know, you've
24 heard part of the Metis submission. You weren't
25 here for the Southern Chiefs or the Peguis

1 submission, you didn't read those transcripts, you
2 haven't fully read the chapter 11 and all the ATK.
3 You haven't looked at Peguis' report or all of
4 that information.

5 So I'm willing to acknowledge that --
6 you know, you don't have this information; but I
7 would suggest to you that all of this information
8 has gone on the record.

9 MR. BERRIEN: That suggestion may well
10 be so, but the issue that I've got is that it is
11 not on the record in relation to a full
12 examination of the routing alternatives.

13 And they just say, "Show me in
14 chapter 5 of the EPRI study and the routing" --
15 that's what the routing is all about -- "Show me
16 the First Nations information."

17 I'm asking you that question, and I
18 know I don't have to worry about the answer,
19 because the answer is there isn't any, to speak
20 of.

21 So that's what I'm coming up with.

22 MR. VALDRON: Also, I'm not a routing
23 guy, so I couldn't possibly answer that question.
24 But while we are at it, there was something else I
25 was wondering about, and I thought I would ask

1 your opinion as an expert.

2 Now, you criticized Manitoba Hydro for
3 basically not incorporating First Nations
4 information or First Nations priorities or -- you
5 know, stuff, in this, in their assessment. And I
6 mean, you know, you've pulled out the tables, and
7 you've shown that they have -- you know, natural
8 and build and construction.

9 And yeah, there is no sign of First
10 Nations specifically in there. But there is
11 chapter 11 and ATK. And you have taken a look at
12 them. I assume you have read the EIS and the
13 routing issues. Where does chapter 11 fit in?

14 MR. BERRIEN: I wish I knew.

15 MR. VALDRON: Okay. So from your
16 point of view, chapter 11 just sits there in a
17 vacuum?

18 MR. BERRIEN: Pretty well.

19 MR. VALDRON: Do you think that they
20 just simply incorporated or folded it into the
21 natural or the environment component?

22 MR. BERRIEN: But I shouldn't have to
23 guess at that. It should be told to me, because
24 this is what this is all about. This Commission
25 is being asked to make judgment calls based on

1 recommendations and applications from Manitoba
2 Hydro. They shouldn't have to guess what the
3 weight or what the factors were that arise from
4 First Nations considerations.

5 I've heard about this testimony. I
6 have got a chance to read some of it. I listened
7 to some of it yesterday. Clearly, there are a lot
8 of factors involved. Show them to me in
9 chapter 5. Why shouldn't they be in there? They
10 should.

11 MR. VALDRON: Well, you are here as an
12 expert, so I can ask you your opinion.

13 It is not clear to you; where do you
14 think they put it? Did they incorporate First
15 Nations interests at all?

16 MR. BERRIEN: I wish I knew. And
17 let's just remember something. If I had to, under
18 the three considerations,
19 one-third/one-third/one-third, the natural and the
20 built. If you want to call the built the private
21 landowners, if you want to call the natural the
22 First Nations, and the engineering is the other
23 one.

24 Remember what I said in my testimony,
25 7 1/2 per cent to built; home sites, and all the

1 other considerations that went to built.

2 7 1/2 per cent to natural. Seven and a half
3 per cent. 40 per cent to costs.

4 You tell me where this information got
5 taken into account in any reasonable way.

6 And I'm going to suggest to you that
7 if it did, it is a suggestion, but it is not in
8 evidence. I mean, you can have all of the ATK
9 studies you want, but until they hit the ground in
10 the routing model -- and you can see where
11 Manitoba Hydro allocated priorities, importance,
12 statistics -- you can only guess what they were
13 doing.

14 MR. VALDRON: So your evidence is and
15 your opinion would be that Manitoba Hydro needs to
16 do a better job of incorporating ATK into its
17 model?

18 MR. BERRIEN: Couldn't have said it
19 better.

20 MR. VALDRON: Okay. And that should
21 be at the front end, and not buried somewhere in,
22 say, the natural components or the environment
23 components?

24 MR. BERRIEN: Obviously, we have those
25 Section 35 rights that have to be recognized, and

1 consultation and accommodation is an important
2 consideration. And this area that we are talking
3 about, where this route might go, is a major area
4 of interest for the First Nations and the Metis
5 peoples. It clearly has to have a higher
6 priority, in my view, than it did; that's why my
7 recommendation is that the AY route may, may
8 represent some level of balance in terms of
9 impacts between private landowners and First
10 Nations.

11 But I don't know that for sure. I'm
12 simply suggesting that with further investigation,
13 send Manitoba Hydro back; maybe we will get that
14 data, and then this Commission is empowered, as it
15 should be, to weigh the various factors and to
16 decide what criteria are more important.

17 MR. VALDRON: All right. Now, I
18 appreciate that answer. Now, let's see. I'm just
19 looking for something; I will be right with you.

20 Now, I believe that one of the things
21 that you said in your report is that -- and it
22 will take -- I can probably find it, but I'm just
23 going by memory here.

24 One of the things you said in your
25 report was that all things being equal, the

1 interests of private land should come before
2 public land. I mean, if Hydro has a choice,
3 everything else being equal, they should build on
4 public land rather than private land. Do you
5 recall saying that?

6 MR. BERRIEN: Yes. I think the
7 comment that directs you to that thought is that
8 if you have a Crown corporation, it just seems
9 appropriate that a Crown corporation would use
10 Crown land for its purposes, if it was available,
11 and if the impacts were reasonable in a
12 comparative sense.

13 MR. VALDRON: Okay. This is going to
14 be a little bit technical.

15 I read in here some places you use
16 public land, some places you use Crown land. Is
17 there any -- were you making any distinction, any
18 difference?

19 MR. BERRIEN: No.

20 MR. VALDRON: So public land is Crown
21 land, and back and forth?

22 MR. BERRIEN: Yes.

23 MR. VALDRON: Okay. That clears it
24 up.

25 Now, you may laugh at me, but

1 sometimes I look at private land kind of like
2 cheese.

3 MR. BERRIEN: Like cheese?

4 MR. VALDRON: Like cheese. I will
5 tell you what I mean. You go stand in the --

6 MR. BERRIEN: Just remember, sir, that
7 there are farmers behind you.

8 MR. VALDRON: Farmers appreciate
9 cheese.

10 You go stand in the wheat field, and
11 you walk five feet, and you are still standing in
12 wheat. You walk twenty feet, you are still
13 standing in wheat. Fifty, wheat.

14 Out in the bush, or in public land,
15 Crown land, suppose you are standing in a little
16 patch of sage. Well, you walk five feet, you're
17 not in sage any more; you are in something
18 completely different, possibly poison ivy. You
19 walk 50 feet, you're someplace completely
20 different.

21 So, you know, often in private lands,
22 it is very specific in terms of the interests that
23 are there, and the interests are pretty uniform.
24 But in Crown land, you have a lot of diversity.
25 Any particular spot of Crown land can be quite

1 unique.

2 Would you agree with that?

3 MR. BERRIEN: Yes. The only
4 qualifying factor is that after the farmer has
5 walked X number of feet, he hits the fence, and
6 all of his interests are within that fence. And
7 he doesn't have the option to hop the fence and go
8 to his neighbour's place.

9 I'm on Crown land, yes, I'm standing
10 in sage, then I'm standing in poison ivy; but I
11 walk another 100 feet, and I'm standing in another
12 patch of sage. And I walk 50 feet that way, and
13 I'm in another patch of poison ivy.

14 The alternatives in Crown land, in my
15 view, are probably more replaceable, or have
16 alternative location opportunities -- hence the
17 map with all the dots on it -- than the private
18 landowners. They have to live with what happens
19 inside and what is visited upon them in the form
20 of impacts when somebody comes in to that private
21 land who has expropriation powers.

22 That's why it isn't quite as simple as
23 saying, "Well, we lose those plants; they're gone
24 forever."

25 I agree with that, by the way. But

1 you also remember that I said that where you have
2 areas that are already impacted, following
3 existing linear disturbances, existing power
4 lines, existing railways, that may -- at least
5 according to the Metis report -- be already
6 underutilized because there is a factor already
7 there; there is a loss that already took place.

8 Maybe that's a routing opportunity to
9 minimize those impacts, to make them incremental,
10 as opposed to over in a farm, brand new. That's a
11 question that doesn't answer itself easily, but it
12 is a perspective that does accurately apply to the
13 situation.

14 MR. VALDRON: Yeah. Now, you see,
15 that's where I think the two of us depart.
16 Because what I would suggest is that it is not a
17 good enough answer to a person's Aboriginal or
18 traditional rights to say, "Okay, we are just
19 going to muck up your -- you know, traditional
20 hunting area, or traditional berry-picking area,
21 or traditional sage area, the family camp area,
22 you know, and -- but that's okay, because there is
23 some other area that you can go to."

24 MR. BERRIEN: Is that --I just want to
25 make sure that's all of it.

1 MR. VALDRON: Yeah. That's the
2 question.

3 MR. BERRIEN: The issue as I
4 understand it -- and again, we've confirmed I'm
5 not a lawyer -- is that to consult and
6 accommodation, where reasonable and possible, but
7 not unequivocally.

8 In other words, I don't think that
9 Section 35 of the Constitution Act says that a
10 First Nation person points to a particular point
11 in Crown land to which they have some access,
12 legally, is an automatic barrier to nothing else
13 happening there. I don't understand that to be
14 the case.

15 If I'm wrong, so be it. I'm not a
16 lawyer. But what I would say to you is that if
17 that's the case, then Crown land development is
18 basically off the table any time any First Nations
19 person says "No, I don't want it to go there,
20 because it is an area that I claim some interest
21 to."

22 I don't think that's the law in
23 Canada. I don't think that's the practical
24 application of First Nations constitutional
25 rights. I think they have a say, a very

1 significant say, but I don't think that they have
2 the right to say no.

3 MR. VALDRON: Well, that's actually a
4 very legal answer, and I certainly appreciate your
5 perspective, even if my clients may disagree with
6 it.

7 But I don't think it completely
8 resolves the issue. It is one thing to say,
9 "Yeah, these sets of users don't have a veto"; but
10 that's a far cry from saying that -- "Yeah, they
11 can just go someplace else," because those other
12 resources may be taken up; those other resources
13 may pose difficulties or barriers.

14 We have heard evidence a while back
15 that a great many Peguis members, say, hunt in
16 this area; if they have to hunt someplace else --
17 this area is about an hour away for them. If they
18 had to hunt someplace else, they have to travel
19 about six hours. That creates a barrier, don't
20 you think?

21 MR. BERRIEN: Yes, that's a
22 significant issue in terms of understanding the
23 impacts. That's data and location-specific.

24 MR. VALDRON: Yeah. One of the issues
25 that raises for my clients is that their hunting

1 areas or their gathering -- their traditional
2 areas are continually being diminished.

3 So, you know, way back when, turn of
4 the century, it was all available to them; by
5 1930, 60 per cent was available to them; between
6 1930 and the current time, well, they are down to
7 40 per cent. Their area is continually
8 diminished.

9 MR. BERRIEN: I understand that. I
10 understand that representation. I'm not sure
11 where I read it, but I've seen something along
12 those lines.

13 But what you have -- what challenge I
14 guess you, as legal counsel for the First Nations,
15 have, is to decide where the line is from which
16 there will be no further developments in Crown
17 land.

18 Because that's really what you are
19 suggesting, is that the diminishment -- the
20 islands of available resources are now so small
21 that they can suffer no further diminution.
22 That's your job, to convince this panel or others
23 of similar authority that -- "That's it. Sorry.
24 Those constitutional rights stop at this location,
25 because we can't suffer any further reduction in

1 those available areas."

2 That's a challenge that you have to
3 deal with. I can't resolve that, by any means. I
4 can't even give you an opinion on that. But I can
5 give you an opinion that that's where the line
6 lies.

7 MR. VALDRON: That comes back, though,
8 to the statement that -- you know, public land is
9 to be preferred where all else being equal. I
10 would suggest to you that it is not equal; that
11 the interest and the very nature of public land is
12 quite different from private land.

13 I would suggest to you, for instance,
14 that, say, the issue of fragmentation of public
15 land can have a massively disproportionate impact
16 on the use and availability and access to that
17 public land.

18 MR. BERRIEN: I wouldn't disagree with
19 that; hence my recommendation that we have a look
20 at those existing linear disturbances where
21 fragmentation is only minimally increased, if at
22 all. I take your point.

23 MR. VALDRON: So that comes back to
24 a -- that comes back, for us, to the issue of how
25 we balance or allocate these priorities between

1 Crown lands and private land. Do you agree?

2 MR. BERRIEN: Yes.

3 MR. VALDRON: Okay. Just bear with me
4 a second; my notes are just terrible.

5 Now, one of the things you said right
6 at the end of your report -- and I believe you
7 said it in your presentation -- is that you
8 suggested that maybe the solution would be to look
9 at moving the route, so as to share the pain, or
10 balance the pain.

11 MR. BERRIEN: That was the end of my
12 report, where I was suggesting that the balance of
13 impacts is a valid consideration for the
14 Commission.

15 MR. VALDRON: Um-hum.

16 MR. BERRIEN: And to the extent that
17 if that balance sees some private land, some Crown
18 land, impacts on landowners, on home sites in some
19 locations; impacts on gathering and hunting sites
20 in other locations, that's a question that this
21 Commission is, quite frankly, going to have to
22 resolve.

23 It is up to you as counsel to convince
24 them that your impacts are greater. As I told
25 you, I don't have a view of that yet. But that,

1 really, is the balance that needs to be struck
2 here, in my opinion.

3 MR. VALDRON: I agree with you. I
4 agree with you that the balance has to be struck.

5 And I guess this is my concern with
6 respect to your report. Because as I'm looking at
7 it -- I mean, you talk a lot about -- you know,
8 priorities of, say, the home sites. And I look at
9 this, and I think, "Well, okay, home sites, pretty
10 important; I can understand that concern."

11 But then as I'm trying to assess this
12 report, and trying to say, "Well, what is the
13 Commission going to make of this report?" I'm not
14 seeing the other side of it.

15 You look at, for instance, home sites
16 versus berry sites. Okay? You are arguing -- and
17 you actually make this argument in here -- there
18 are other berry sites. So if they lose one berry
19 site, they can move.

20 And that is -- that's essentially
21 sharing the pain. The private stakeholder gets to
22 sit on their private stake hold, and the
23 Aboriginal interest can just go move someplace
24 else.

25 I hope I'm not misrepresenting you.

1 But it seems to me, one of the concerns is that
2 Aboriginal rights, Aboriginal interests, are not
3 necessarily so fluid. If you have, say, a
4 ceremonial site, that's not replaceable; you can't
5 just go to the next ceremonial site.

6 So this, I think, is what is missing
7 for me in your report. You set out -- and as an
8 expert, you say, okay, all priorities are here and
9 here and here. Home sites, number one
10 priority. And you don't -- and then agricultural
11 sites, second priority, and on down the line.

12 But I'm not seeing where the
13 Aboriginal component sits in. And as I'm reading
14 your report here -- and it is a very good
15 report -- the Aboriginal component doesn't fall
16 into this list of priorities. It is essentially
17 ignored.

18 And if we were just talking about
19 private land, completely, and that was the only
20 thing that was on the table, I would say, "Fine."
21 But right here, we are talking public land as
22 well. And that's missing.

23 Now, it seems to me you are
24 acknowledging that there is a great deal that you
25 haven't even looked at. It seems to me that you

1 are acknowledging that this stuff is actually
2 important.

3 So what I'm seeing, and -- you know, I
4 assume you are going to contradict me -- is you
5 are rendering an opinion as to both the whole of
6 this, public and private land, but half of your
7 component is missing, because you don't speak at
8 all to the Aboriginal issue or the Aboriginal
9 right in your assessment, in your list of
10 priorities.

11 And even worse, as I look at your list
12 of sources, these sources are essentially
13 oblivious to the history and emergence of
14 Aboriginal rights as a matter of growing legal
15 importance. The landscape that we have in 2017 is
16 not the landscape that existed in 1977.

17 So given that from what I can see,
18 half your report is just missing, half of it is a
19 blank, you have not touched on something that's
20 very critical; what is it worth?

21 MR. BERRIEN: What is the report
22 worth?

23 MR. VALDRON: Yeah. What is it worth?

24 MR. BERRIEN: The report serves the
25 function of reviewing Manitoba Hydro's priorities

1 and decision-making relative to a route.

2 I think the report is fairly effective
3 in showing that that approach was deficient; it
4 didn't really provide the good guidance that it
5 might have provided if it had followed the CEC's
6 Bipole 2 recommendations.

7 And that is the beginning of the
8 analysis, which is to say, let's look at what they
9 are putting forward as a preferred route. If that
10 route is found to be in contradiction to the
11 characteristics of the land through which it
12 passes, private land, then you have a basis for
13 going back and looking at something again. So
14 that is the first step in this.

15 The second step is to say, "Okay, if
16 we are going to go back, what should we look at?"

17 And I will agree with you that the
18 landscape is different now than it was. I will
19 agree with you that the authorities that I cited
20 are silent about your Aboriginal issues. I agree
21 with that. But the point I tried to make at the
22 end of the report -- and that's the only place I
23 could make it -- is that the evidence, in my view,
24 is lacking to do the nature of the evaluation that
25 I think needs to be done.

1 I would've thought that it would have
2 been obvious to you that the absence of that data
3 was a glaring hole that should be filled. And
4 I've called attention to that hole, and you should
5 be, in my view, appreciative of that; not giving
6 me heck because I didn't do it. I didn't have the
7 data to do it. But I recognize that it is a
8 glaring hole.

9 I'm not suggesting, either, as a
10 conclusion, that we automatically go to private
11 land, or that we automatically go to Crown land.
12 What I'm suggesting is that once we have the
13 impacts, once we have the capacity to gauge their
14 weight and their importance, then we are in a
15 position to make a decision on a recommended final
16 route, and this commission would have the data
17 that it needs to make that recommendation to the
18 Minister.

19 MR. VALDRON: And that's very well
20 spoken, and I appreciate it. And I think we are
21 both saying the same thing to the Commission.

22 I'm going to ask you another question
23 arising out of this, because as I'm looking at
24 this, what seems to be very clear to me is that --
25 you know, you are going to a great deal of trouble

1 to render an opinion setting out priorities.

2 Okay?

3 MR. BERRIEN: Yes.

4 MR. VALDRON: I mean, in my mind,
5 there is no doubt about that; you've gone through
6 a lot of work to look at all of these decisions,
7 all these cases, to try and find statutes, find
8 regulation, and to tease out meaning and priority.

9 And if we are just talking private
10 land, I would say you have done a pretty good job.
11 But now we are talking the whole enchilada -- I
12 shouldn't have said "enchilada". It's just a bad
13 word.

14 Anyway, we're talking --

15 MR. BERRIEN: Through
16 misappropriation, sir?

17 MR. VALDRON: Don't get me started.

18 But the whole -- the big picture here
19 is that Aboriginal rights, Aboriginal interests
20 have to be in this list of priorities. And that's
21 missing from your report.

22 MR. BERRIEN: No, it isn't. It is in
23 the end of the thing, and I've told you that it is
24 not complete. But I've tried to put it in there
25 when nobody else has. And I've acknowledged that

1 it is only a shadow of what those interests are.

2 I told you that this is all I could
3 find that I could enumerate, but there is a lot
4 more that can be enumerated. I said those very
5 words, and they are in the report. The report is
6 incomplete because I don't have the data. If I
7 had it, and I had the knowledge to absorb it and
8 to make those evaluations and to set out those
9 priorities, I would have given it to you. But I
10 don't.

11 MR. VALDRON: Okay. Okay. But now I
12 have to call you on that, because what I would
13 argue is that -- you know what? Data is out
14 there. Hydro did its entire chapter, it did its
15 ATK studies and funding; Peguis has done its
16 thing. There has been several days of hearing;
17 the transcripts were available to you.

18 And more than that, I mean, you looked
19 up reports and sources going back to 1977, and you
20 even cited a Supreme Court case. But I'm not
21 seeing anything in any of the sources that you
22 looked at that even discuss tangentially where
23 Aboriginal interests fit into this picture.

24 So you haven't said -- you know, you
25 haven't really answered. You haven't really tried

1 to set into the priority, you just said, "Well, it
2 is there somewhere."

3 MR. BERRIEN: No, I haven't said "it
4 is there somewhere." What I said is it is absent.
5 I said it is absent.

6 MR. VALDRON: So in terms of that
7 absence, you can't evaluate that yourself? You
8 can't say how Aboriginal interests get to be
9 balanced against home owners, against hay fields,
10 against hog farms?

11 MR. BERRIEN: I think I agreed with
12 that, and made that statement some time ago.

13 MR. VALDRON: Yeah. I like to repeat
14 myself sometimes.

15 MR. BERRIEN: I noticed that.

16 MR. VALDRON: Now, I remember you said
17 uncultivated bush was most desirable for tower
18 siting. I've got to tell you, my clients would
19 probably disagree with you there. And are you
20 still prepared to stand by that statement?

21 MR. BERRIEN: As far as a tower is
22 concerned for impacts on agriculture, yes.

23 MR. VALDRON: We are not talking
24 impacts on agriculture.

25 MR. BERRIEN: That was the context of

1 the remark.

2 MR. VALDRON: All right. So if we are
3 not confining ourselves to agriculture, or the
4 specific needs of agriculture, uncultivated bush
5 is not necessarily desirable tower siting for
6 people exercising Aboriginal rights.

7 MR. BERRIEN: Please understand that
8 the tower is the least of the areas impacted. The
9 whole right-of-way, which is 400 metres long,
10 which is terminated by two towers that are ten by
11 ten, the tower is the least area that's impacted
12 when we are talking about bush, clearing bush, and
13 what is lost.

14 Those conductors are up there, and
15 they are humming and they're disturbing and all
16 the rest of it. So you need to understand the
17 priority of my perspective is uncultivated is the
18 best for towers, because you don't have to farm
19 around them. For your perspective, the entire
20 right-of-way is what's involved.

21 MR. VALDRON: You said those towers
22 are pretty noisy.

23 MR. BERRIEN: Yes, they are,
24 especially in the rain. You can hear them
25 humming.

1 MR. VALDRON: So they are probably not
2 desirable for people who are trying to practice
3 their traditional activities and have to go around
4 them or dealing with the humming, et cetera?

5 MR. BERRIEN: No argument.

6 MR. VALDRON: All right. Excuse me
7 for a second; I'm just going to check through my
8 notes and see if there is anything I missed.

9 Page 53 of your report.

10 MR. BERRIEN: I'm sorry, I couldn't
11 understand you, sir.

12 MR. VALDRON: Page 53 of your report.

13 MR. BERRIEN: What page, again?

14 MR. VALDRON: Fifty-three.

15 MR. BERRIEN: Thank you, sir.

16 MR. VALDRON: You see? It's good that
17 I repeat myself.

18 MR. BERRIEN: Just must be your
19 accent.

20 I have it.

21 MR. VALDRON: All right. Second
22 paragraph, you write:

23 "It may be that these issues are not
24 sufficiently represented in the
25 routing process used elsewhere in

1 Canada, but in Manitoba, this is a
2 major consideration. It deserves, in
3 my view, some quantitative
4 evaluation."

5 What did you mean by "quantitative"?

6 MR. BERRIEN: Numbers.

7 MR. VALDRON: Okay. "Qualitative";

8 what is the distinction here in this passage
9 between quantitative and qualitative?

10 MR. BERRIEN: Quantitative is
11 statistics that the panel can put -- run through
12 the grinder. There are more considerations,
13 obviously, but -- and I simply used the example of
14 your 11-3, 11-4, 11-5 maps, where First Nations --
15 people from the Peguis reserve indicated areas
16 that were problematic for them as far as these
17 routes were concerned.

18 I think that's the kind of thing that
19 allows the Commission to distinguish between
20 unoccupied Crown lands, that would have minimal
21 impacts, or a right-of-way placed through them, as
22 opposed to areas that would have significant
23 impacts and concerns for First Nations uses.

24 So that's the difference. To just go,
25 as one of these transcripts said, "Well, that's a

1 no-go area for us," I'm afraid that's just a
2 little too broad to really wrap yourself around.
3 That constitutes the kind of thing that we call a
4 veto. "No, you can't go there because it is
5 important to us."

6 Well, my problem or my issue is that,
7 "Well, tell us how it's important to you. Why do
8 you say it's important to you? Give us data.
9 Back us background. Give us information."

10 It is not enough, in my view, to just
11 say, "I don't want you in there because."

12 MR. VALDRON: And so it is also
13 qualitative evaluation. Correct?

14 MR. BERRIEN: I think -- yes, and
15 where possible, if you can convert that into
16 quantitative, I think that would be useful.

17 MR. VALDRON: All right. Now let's
18 just briefly jump over to page 34 of your report.

19 MR. BERRIEN: I have it.

20 MR. VALDRON: Okay. Second paragraph,
21 you talk about the recommendation of the CEC,
22 which advised Manitoba Hydro to discontinue using
23 undeveloped Crown land as default routing option
24 without appropriate assessment of the impact.

25 And you've given us an interpretation

1 here that suggests that Hydro took this as a
2 direction to avoid Crown land completely.

3 MR. BERRIEN: You will remember,
4 sir -- I want to interrupt you briefly -- that I
5 had that discussion with the Manitoba Hydro
6 counsel, and I agreed that I had overstated it.

7 MR. VALDRON: Okay. I am going to
8 just go down a slightly different road.

9 MR. BERRIEN: Sure.

10 MR. VALDRON: I feel no need to cover
11 his ground, but sometimes the paths sort of are
12 close by.

13 Let me ask you: This recommendation,
14 when I read it, I took it to mean that the CEC
15 were at least partially, or wholly, directing
16 appropriate assessment to include Aboriginal and
17 Treaty rights.

18 MR. BERRIEN: I don't have any problem
19 with that interpretation.

20 MR. VALDRON: Okay. So that was
21 something that the CEC was directing. All right.

22 I think we are almost done.

23 MR. BERRIEN: I was just wondering
24 about the definition of "a few", but that's okay,
25 a few questions.

1 MR. VALDRON: I have to tell you, I'm
2 a Maritimer.

3 MR. BERRIEN: Fair enough.

4 MR. VALDRON: All right. Got my last
5 question; I'm just going to double-check here.

6 All right. Now, like I said, if you
7 want to take a run at EPRI, that's not my lookout.
8 That's Hydro's baby, and it is their job to
9 cross-examine, and I guess it will be up to the
10 Commission to consider that aspect of your report.

11 But in your final recommendation, on
12 page 58, you say the AYC is a middle ground both
13 in impact and geography-wise. It affects some
14 home sites, some farmland. It will infringe on
15 gathering sites. And it looks like you are
16 recommending that.

17 I guess the question is how you -- you
18 said repeatedly that you haven't assessed the
19 Aboriginal component at all; how can you make a
20 recommendation like that, that involves both
21 Aboriginal interests and private interests, when
22 you've only looked at the private interests?
23 Aren't you overstating yourself a little bit? Is
24 that a recommendation you can fairly make without
25 incorporating Aboriginal interests? And you just

1 haven't done that.

2 MR. BERRIEN: The recommendation is
3 based upon what I did have. I will concede there
4 is much more, and I have done so a number of times
5 to your questions.

6 To take the position that the impacts
7 are so great on the First Nations that we have to
8 go over to the private land, I don't feel that I
9 can make that recommendation. I don't think there
10 is enough information to reach that conclusion.

11 But I think I am saying fairly that --
12 yeah, there are some impacts on First Nations.
13 The preferred route has some impacts on private
14 landowners. Let's look at those and come up with
15 a solution, if possible, that balances, to the
16 degree possible, the impacts. If we can't, then I
17 guess it goes over where the preferred route is,
18 or some alternative to that.

19 But -- you can question me all day,
20 but I'm not going to sit here and say to you that
21 the First Nations impacts are so great that we
22 can't use Crown land, because we don't have enough
23 information to reach that conclusion.

24 MR. VALDRON: Well, that's not the
25 question I was asking you. You were recommending

1 a specific route. And I will agree with you
2 that -- well, no, what I will say is you are
3 recommending a specific route in your report, and
4 now I think what you are saying is that we just
5 don't know enough, and that -- you are saying
6 that, "Well, First Nations can't get a veto."

7 Okay. Fine. Fine. First Nations
8 don't have a veto. But that interest has to be
9 considered. And if you are considering that
10 interest, what you've said is that we've got to
11 look at this. That seems to be your final
12 recommendation, that we've got to look at this,
13 and look at both sides.

14 So is that conclusion substituting for
15 this recommendation for a specific route here?

16 MR. BERRIEN: Well, what I said is
17 they can seek more information on the central part
18 of the final preferred route. I especially see
19 the AY as a suitable routing. That's what I've
20 said, and I've said why: Because it infringes on
21 some private interests, and it infringes on some
22 First Nations interests.

23 I think it is a suitable route for
24 further investigation. That's as far as I can go,
25 because -- remember, I'm not trying to plot a

1 route here; I only gave a couple of bars. I'm
2 not -- come up with a new route myself. What I've
3 done is I've looked at what Manitoba Hydro put
4 forward in the application; I saw an eastern
5 route, a western route, and a route down the
6 middle. The route down the middle suggested to me
7 as bearing further investigation.

8 Why? Because it had the potential to
9 balance the impacts. If that doesn't turn out to
10 be the case, based on the evidence, so be it. But
11 my perspective is that we have a route with
12 statistics; we have a route that has some
13 information on it; I think that route bears
14 further investigation, because of the things that
15 I've said.

16 That's all I can tell you.

17 MR. VALDRON: So like Solomon, you are
18 splitting the baby down the middle, but you don't
19 quite have a good look at half the baby.

20 MR. BERRIEN: Let's put it this way:
21 Nobody dies when I split the baby.

22 MR. VALDRON: I think that's a good
23 place to conclude the cross-examination.

24 Mr. Berrien, it has been a pleasure. I want to
25 thank you for coming to Winnipeg. I want to thank

1 you for participating in this process.

2 MR. BERRIEN: And I want to thank you
3 for giving me the opportunity to think a lot more
4 about the kind of things that are important in
5 this consideration here before us today.

6 MR. VALDRON: No problem.

7 I have no further questions. I don't
8 know if anyone else is cross-examining from the
9 participants.

10 THE CHAIRMAN: Thank you, Mr. Valdron,
11 for those questions, and thank you, Mr. Berrien,
12 for the responses. Questions?

13 Yes, Mr. Toyne.

14 MR. TOYNE: I've got two very brief
15 questions that are in the nature of clarification,
16 just given one question that my friend Mr. Hunter
17 asked, and a concept that came up during
18 Mr. Valdron's questioning. I think it might be
19 helpful if I ask them before the panel asks their
20 questions.

21 THE CHAIRMAN: Go ahead.

22 MR. TOYNE: And I will use a phrase
23 that I like that Mr. Hunter suggested, the
24 reference to the non-contentious segments.

25 So with respect to the first

1 non-contentious segments, there was some questions
2 asked about its length, and where it started and
3 where it terminated. And at one point we were
4 talking about Dorsey to Anola, and another point
5 we were talking about Dorsey to Vivian.

6 Mr. Berrien, can you just confirm
7 which one of those you were referring to?

8 MR. BERRIEN: I think it is Anola,
9 because that's still the -- call it the eastern
10 extent of the corridor.

11 MR. TOYNE: And then the second
12 question for clarification I had, and this goes to
13 your discussion with Mr. Valdron about Section 35
14 and the duty to consult and the duty to
15 accommodate.

16 In your experience, the commissions,
17 boards, and tribunals that you appear in front of
18 in Alberta, are they tasked with the duty to
19 consult or accommodate, or is that something
20 that's carried out by the Provincial Government in
21 Alberta?

22 Again, not asking for your legal
23 views, but just in your experience, is that
24 something that those boards, commissions, and
25 tribunals are doing?

1 MR. BERRIEN: My understanding -- and
2 it is only mine -- is that the commissions don't
3 have that responsibility; the combination of the
4 proponent and I think the Provincial Governments
5 have that responsibility. But that's just my
6 understanding.

7 THE CHAIRMAN: Those are your
8 questions, Mr. Toyne?

9 MR. TOYNE: Yes. I don't have any
10 further questions for clarification for
11 Mr. Berrien.

12 THE CHAIRMAN: Thank you.
13 Questions from the panel.
14 Ms. Streich.

15 MS. STREICH: Yes.

16 Mr. Berrien, I understand you are an
17 expert in land appraisal, particularly for rural
18 areas. On page 58, you wrote that -- there was a
19 quote about the woefully inadequate scheme that
20 follows an expropriation by Manitoba Hydro for a
21 power line. Could you elaborate on that statement
22 a bit?

23 MR. BERRIEN: Yes. The expropriation
24 regime, that is what empowers Manitoba Hydro to
25 acquire property, differs from other provinces,

1 where they use right-of-entry orders and easements
2 and things of that nature.

3 Even though they are expropriation, it
4 is still only an easement interest, but it is an
5 expropriation that leads to a single payment, one
6 time, combination of land and damages. The
7 damages payment is typically capitalization of the
8 expected losses and impacts that a farmer will
9 experience as a result of towers on his land.

10 What I'm getting at there is that that
11 component of the compensation only arises from
12 towers. The right-of-way is a simple purchase;
13 there is no additional compensation for that. But
14 because of changes, because of a whole variety of
15 possibilities that are unrealized at the time of
16 the expropriation, there is no opportunity to come
17 back and get compensation as difficulties increase
18 over time, as crop rotations change, as a farmer
19 goes into hog production; there is all of those
20 things that just -- we don't have, that in my
21 view, at least, should be considered.

22 And it is no difficulty to put annual
23 compensation in place; your legislature has just
24 decided not to do it. It is done elsewhere,
25 routinely. So it is not an issue. But in my

1 view, that leaves the farmers in a poor position.

2 One of the things that just follow up
3 on that, when I was talking about the impact of
4 power lines and towers on land values, in Alberta,
5 one of the reasons I can recently state that
6 allows that to be not an impact on agricultural
7 land is the ongoing compensation.

8 When Manitoba -- if one of the fellows
9 in the South Coalition was to have their property
10 impacted by power lines with a tower, he would get
11 the money; but he retires in ten years or
12 something like that, and the power line is still
13 there. Well, the next guy doesn't get any money.
14 How is he compensated for farming around that
15 tower in perpetuity? He's not.

16 That raises a prospect that there
17 could be an impact, so that's what I'm talking
18 about when I say compensation is inadequate.

19 MS. STREICH: And you say that this is
20 commonplace in other jurisdictions?

21 MR. BERRIEN: Yes. Yes.

22 MS. STREICH: Thank you.

23 THE CHAIRMAN: Mr. Gillies.

24 MR. GILLIES: Hello. I've got a
25 couple of questions on your report.

1 Chapter 4, the evaluation critique of
2 the BMY FPR.

3 MR. BERRIEN: Have you got a page
4 number, sir?

5 MR. GILLIES: Page 42.

6 MR. BERRIEN: Thank you very much.

7 I am with you.

8 MR. GILLIES: So -- and these are just
9 questions for clarification. I'm going to go
10 immediately to page 44, the map there, the FPR in
11 blue.

12 Your suggestion is simply if that is
13 to be the route, that the angle be changed to
14 avoid the heavy-duty towers.

15 MR. BERRIEN: Yeah. I mean, it is
16 just better route planning, that you try to avoid
17 heavy-duty towers whenever you can, because they
18 are bigger, they're more robust, and so on -- and
19 they're cheaper.

20 MR. GILLIES: Okay. Just for
21 clarification.

22 Then page 45, 4.3.1.2, these segments,
23 your point there is there are large concentrations
24 of home sites, so if the final preferred route is
25 to go through these areas, more work needs to be

1 done to see what routing might further mitigate
2 any impact. Is that your point there?

3 MR. BERRIEN: What I would like to
4 see, of course, is a route that doesn't impact as
5 many home sites, if that's at all possible. To
6 the extent that they can't be avoided, then
7 clearly we want to mitigate as much as possible.
8 That may involve tower spotting, or whatever.

9 MR. GILLIES: Okay. So we are on the
10 same page there.

11 Finally, on page 48. Once again, I
12 think we've established that the blue line is the
13 final preferred route that Hydro is making
14 application before this Commission for.

15 You were suggesting a slight jog in
16 the route. There is a lot of numbers on this map,
17 but sort of taking off from the top left-hand
18 corner, on a line that I think you've labeled 482,
19 and then heading straight south, on a line you've
20 labeled 472, that's a suggested change that you
21 are making?

22 MR. BERRIEN: No, sir.

23 If I can refer you to the little white
24 box on the right-hand side, you will notice where
25 it says "Segments". Okay? That's just below my

1 handwritten ...

2 You will notice there that the
3 segments that are deemed to be part of
4 Route BMY -- which, by the way, was adopted as the
5 preferred final route -- the document indicates
6 that the segments that make up BMY include 482
7 and 472. Do you see those two numbers in those
8 segments?

9 MR. GILLIES: I do.

10 MR. BERRIEN: If those indeed are the
11 final preferred route alignments, what is the blue
12 line doing? The blue line does not follow those
13 segments. So my question to Manitoba Hydro is:
14 Which one is it?

15 MR. GILLIES: I think I understood
16 that. But what does Bar 2 refer to, then?

17 MR. BERRIEN: The Bar 2 is if 482 is
18 in fact what they are recommending, then it is a
19 terrible routing, because you've got two
20 right-angle towers basically a couple of hundred
21 metres apart. Those things are huge, they're
22 expensive, and why would you put two big towers in
23 when you could put two light-angle or medium-angle
24 towers in, that cost significantly less?

25 And by the way, the area that I've

1 drawn that in is solid bush, privately owned, as
2 far as I know, and no home sites anywhere that I
3 could see in this map.

4 For that reason, I suggest that if you
5 are going to go with that routing, which goes over
6 and down, over to 472, why would you put in such
7 heavy angles if you could put in more gentle
8 angles?

9 MR. GILLIES: Okay. I understand now.
10 Thank you very much.

11 MR. BERRIEN: Thank you.

12 THE CHAIRMAN: Okay. Thank you,
13 panel.

14 That's it for the panel questions. Do
15 we have documents to file?

16 MS. JOHNSON: Yes, we do. SSC 001 is
17 the outline and CV of April 24. 002 is the
18 May 4th amended outline. 003 is Mr. Berrien's
19 report. 004 are the appendices, and 005 is the
20 map and tables that he supplied today. Thank you.

21 (EXHIBIT SSC-01: SSC outline and CV)

22 (EXHIBIT SCO-02: SSC May 4th amended
23 outline)

24 (EXHIBIT SSC-03: Mr. Berrien's
25 report)

1 (EXHIBIT SSC-04: Appendices to Mr.
2 Berrien's report)

3 (EXHIBIT SSC-05: Maps and tables)

4 THE CHAIRMAN: All right. Thank you,
5 Ms. Johnson.

6 And that concludes our hearings for
7 today. We will be back here tomorrow morning
8 at 9:30.

9 (Adjourned at 4:25 p.m.)

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

OFFICIAL EXAMINER'S CERTIFICATE

Cecelia Reid and Debra Kot, duly appointed
Official Examiners in the Province of Manitoba, do
hereby certify the foregoing pages are a true and
correct transcript of our Stenotype notes as taken
by us at the time and place hereinbefore stated to
the best of our skill and ability.

Cecelia Reid
Official Examiner, Q.B.

Debra Kot
Official Examiner Q.B.

This document was created with Win2PDF available at <http://www.win2pdf.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.
This page will not be added after purchasing Win2PDF.